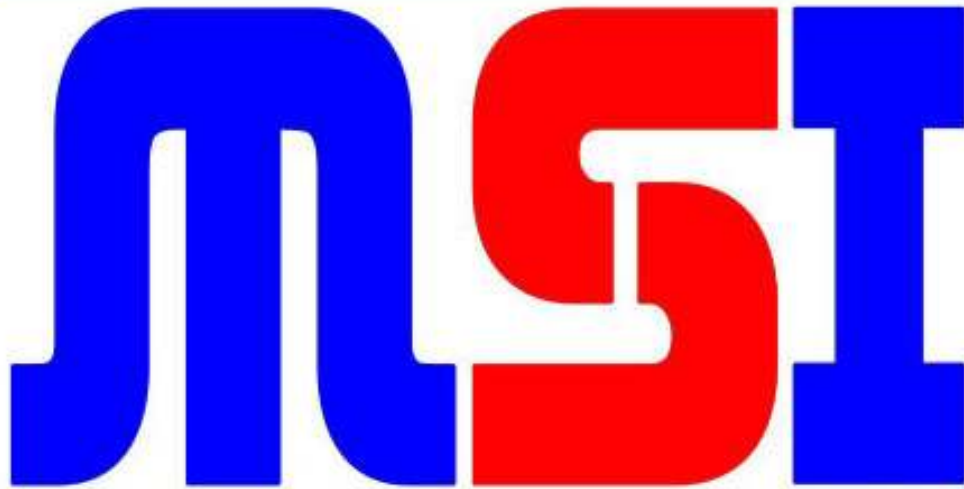


CUSTOM AIR CONTROL



SINCE 1977

A manufacturer of unique HVAC products for fine yachts, mobile vehicles, refrigerated display fixtures, upscale homes, commercial buildings and other applications.

PRODUCT CATALOG 2011

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Revision September 2011

Index

Our History and Our Mission.....	1
Guidelines and Safety.....	2
Wood-Framed Grille Specifying Guide.....	2-3
RA & RAR, Return Air Grille Drawing.....	4
RA & RAR, Return Air Grille Common Sizes.....	5
V, 2-Way Supply Grille Drawing.....	6
V, 2-Way Supply Grille Common Sizes.....	7
VH, 4-Way Supply Grille Drawing.....	8
VH, 4-Way Supply Grille Common Sizes.....	9
VML, 2-Way Supply with Damper Drawing.....	10
VML, 2-Way Supply with Damper Common Sizes.....	11
WG, 30 Degree 4 Way Supply Wedge Drawing.....	12
WGML, 30 Degree 2 Way Supply Wedge W/Damper Drawing.....	12
WG and WGML, Common Sizes.....	13
Plastic-Framed Grille Overview.....	14
Model PGR.....	15-17
Model PGRF.....	17-18
Model PGAR.....	18-20
NEW Model PGAML.....	21
Plastic-Framed Grilles—Hole Cutout Dimensions.....	21-22
Ducting Products	
Round Hose Rings, Elliptical Rings, Flat Ovals, Blower Adapters.....	23
Blower Adapters—Dimensioned Drawings.....	24
Transitions, Standard and Custom.....	25
Transitions, Ring Back, Ring Side, Ring End, Plenum Boxes.....	26
AirDividers.....	27-29
90° Elbows.....	30
Round Plastic Grilles—Global and Traditional Style, Insulated Flexible Ducting, NEW - Duct Couplings, Replacement Filter Material.....	31-32
QuietVent Ventilation Fans.....	33
QuietScent Air Freshener.....	34
Standard and Optional Wood Calculator.....	35
Ordering Terms and Information.....	36

OUR HISTORY

In 1977 we were actively involved with the installation of air conditioning and heating systems in yachts. The need for an attractive grille to complement beautiful yacht interiors prompted us to begin manufacturing our wood-framed grilles. Metal grilles can also condensate while our wood frames will not. Since that time we have greatly expanded our wood-framed grilles, added our ducting components and our exclusive plastic-framed grilles. In 2001, we introduced our QuietVent line of ventilation fans to the industry. In 2009 our QuietScent line of powered air fresheners was created to replace a discontinued commercial product. Our quality products can be found not only on fine yachts but also on mobile vehicles, refrigerated display fixtures, upscale homes, commercial building and many other applications. If quality custom air control is your need, MSI may have a solution for you or and if we do not maybe we can create one for you. With our air delivery system installed just add your choice of HVAC components.

Our **wood-framed grilles** remain our most customizable product with multiple models, sizes and wood species. Choose a more traditional look with oiled or varnished wood. Go contemporary with rounded corners and painted finishes.

Our line of **plastic-framed grilles** with their rounded corners complements any contemporary interior. They paint easily with great adhesion to match most any interior. Their great looks coupled with a snap-in function make it a very unique and proprietary line of grilles.

Whether you choose our wood or plastic grille, an effective means of controlling airflow to them is also necessary. We manufacture and distribute all the necessary **ducting components** to connect our grilles to your system and can package them in a **kit** for your convenience.

Our **QuietVent** line of powered ventilation fans combine our popular plastic-framed grilles with quiet DC and AC fans for multiple uses. Available voltages include 12 VDC, 24 VDC, 115 VAC, or 230 VAC. Use them as bathroom vents, electronic cabinet coolers or wherever you need to move some air quietly.

Our **QuietScent** line of powered air fresheners were created to replace and improve a discontinued commercial line. Currently we are building this product with a 115 VAC fan rated at 24 CFM. DC fans are available with higher CFM ratings.

As you explore our products in more detail through this catalog and if you do not find what you are looking for, please let us know. Custom products are our specialty.

OUR MISSION

*Our mission is to provide you the air control products you require
built with the quality you deserve and delivered on time.*

Guidelines and Safety

Consult your system installation manual for the recommended use of air control products. We will be glad to assist you but it is your responsibility to insure proper airflow and safety. Insure that all of our products are secured as necessary to prevent injuries.

It is especially important that the correct size return air grille be used and mounted as close to the system evaporator as possible. It cannot be mounted in such a manner that it would introduce deadly fumes into the living quarters. Short on space? With our almost unlimited number of sizes and special custom shapes in our wood-framed line, you should be able to insure maximum airflow. *Is that drawer a perfect place for the return air grille but you do not want to go through the work of making a stock grille fit? Pull it out, throw it away and give us the cutout dimensions. We will make a grille to fit that space.*

WOOD-FRAMED GRILLES

We offer a great number of sizes and options in our wood-framed grille line. In order to insure that you get what you want, please make your selections in Steps 1-5. Our Grille Wizard is also available in a spreadsheet format to help you make these selections. Contact us to receive a copy.

First Step. Choose your grille model by code

Code	Description
RA	Return-Air Grille, with fixed vanes, track and filter
RAR	Return-Air Grille, with our EZ removable fixed vanes, track and optional filter
V	Supply Grille, Single Deflection (one row of vanes run vertical)
VH	Supply Grille, Double Deflection (two rows of vanes, front one vertical)
VML	Supply Grille, Single Deflection & Damper (one vertical row w/damper row)
WG	Supply Grille, Double Deflection 30 Degree Wedge (two rows of vanes)
WGML	Supply Grille, Single Deflection & Damper 30 Degree Wedge (one row + damper row)

Step 2. Choose a wood species. Our most common wood species are listed below with their letter designators. Call us to inquire about other species not listed. We are the only manufacturer of our kind that runs their own molder to insure quality and fast orders.

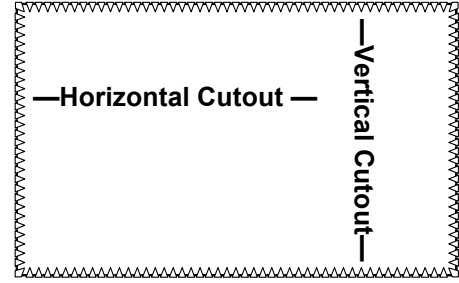
Price Level	Wood Code	Wood Name	Wood Description
1	A	ASH	American White Ash
1	B	BEECH	American Beech
1	SC	CEDAR	Spanish Cedar
1	H	HICKORY	American Hickory
1	JT	JATOBA	Brazilian Jatoba
1	MK	MAKORE	African Cherry
1	MA	MAPLE	American Soft Maple
1	O	OAK	American White Oak
1	P	POPLAR	American Poplar (Paint Wood)
2	C	CHERRY	American Cherry
2	M	MAHOGANY	Honduran Mahogany
2	T	TEAK	Asian Teak
2	W	WALNUT	American Walnut

Please continue on the next page with steps 3, 4, 5 and 6. Steps 3 and 4 are probably the most important steps as this is where you will specify the dimensions of the grille. The order of the dimensions is particularly important as that will determine the direction of the vanes.

Step 3. Specify the horizontal dimension of the grille cutout.

Step 4. Specify the vertical dimension of the grille cutout.

In order for us to build the grille you want correctly, you need to specify the horizontal dimension first. As you review the different models you will see the correlation of dimensions to blade direction.



Step 5. Add any options listed below.

A. Face Options (Please note face dimension drawing below)

- F1** 1-1/8" wide face
- F2** 7/8" wide face (default face, no need to specify)
- F3** 1/2" wide face (grille cut-out dimensions are critical)
- F4** Non-faced (use for custom built-in applications)

B. Other Options

- DF** Delete standard filter
- RC** Round grille corners (F1 and F2 face only)
- WB** Replace bronze blades with white
- KB** Replace bronze blades with black
- BB** Replace white blades with bronze

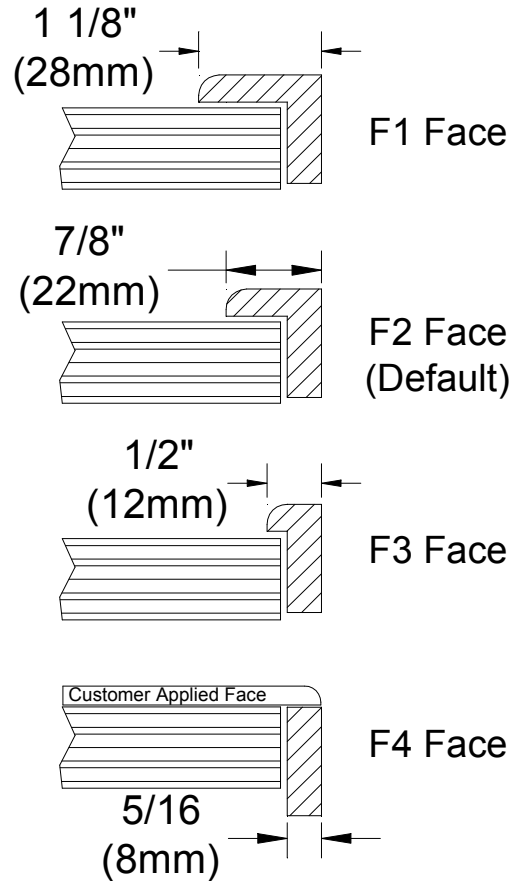
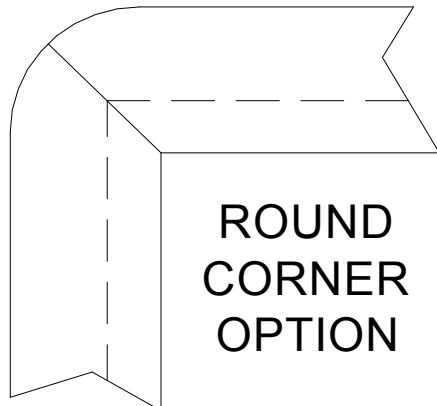
Step 6. Add any finishing options. Other colors are available.

Standard Painting Options

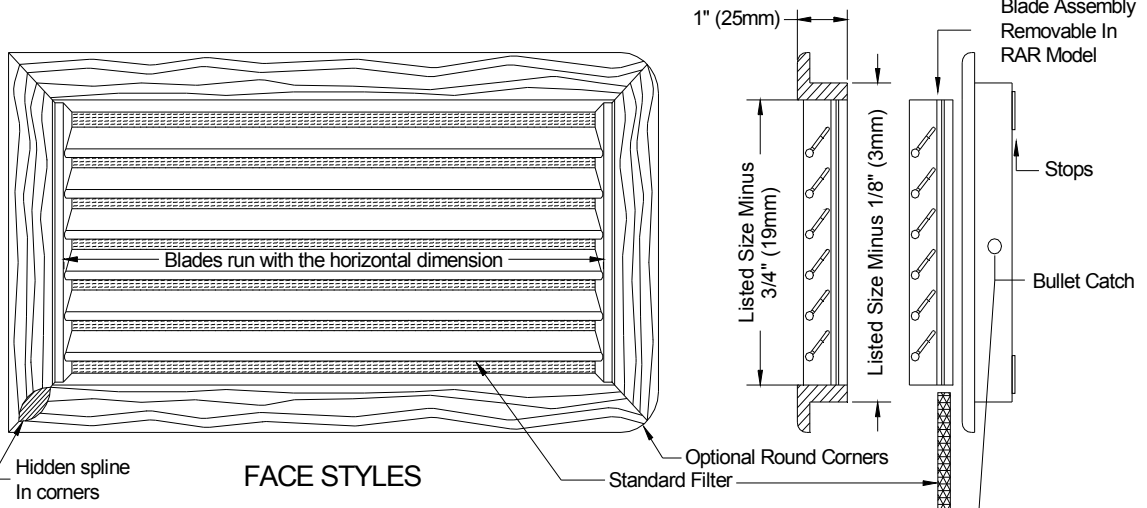
Paint Colors	Gloss Codes	Flat Codes
Prime Only	K	N/A
White	M1	M1F
Antique White	M2	M2F
Cream	M3	M3F
Black	M7	M7F

Stain & Varnish Options

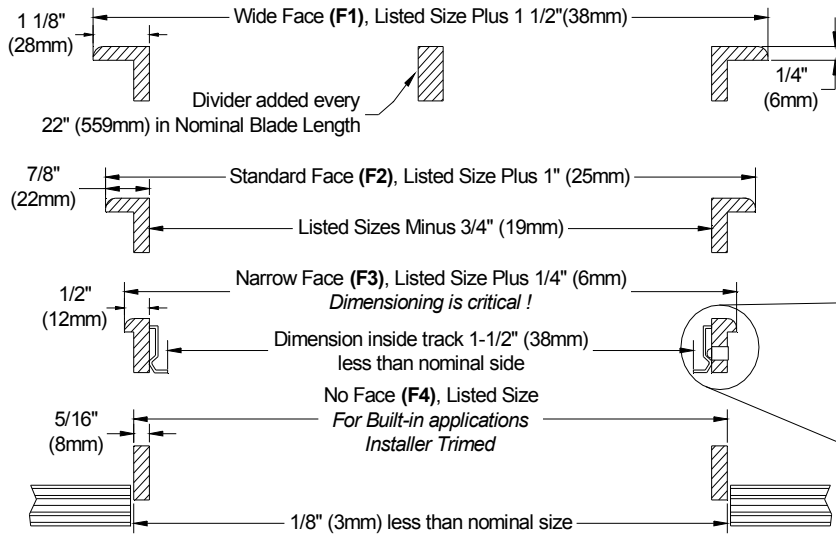
Finish	Codes
Satin Varnish	SP
Gloss Varnish	GP
Stain & Satin Varnish	SSP
Stain & Gloss Varnish	SGP



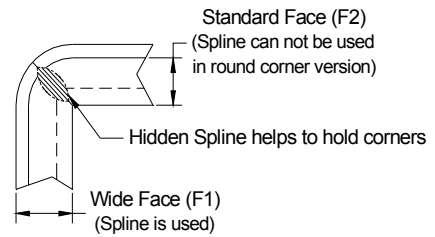
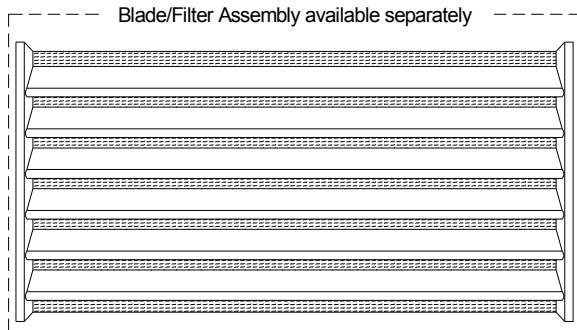
RA & RAR Return Air



FACE STYLES



Our track has been designed to provide a ramp for the "bullet" catches in our RAR model.



Optional Round Corners

RETURN AIR GRILLE, FIXED INSERT

(Teak Codes shown, blade size in **bold**)

To Specify another Species Change Species Code and Name in Description

(I.e. RAM7X7, **Mahogany** Return Air Grille, 7 x 7)

(Our most common sizes listed below, many others available)

ITEM CODE	DESCRIPTION
RAT7X7	Teak Return Air Grille, 7 x 7
RAT8X8	Teak Return Air Grille, 8 x 8
RAT8X10	Teak Return Air Grille, 8 x 10
RAT10X6	Teak Return Air Grille, 10 x 6
RAT10X8	Teak Return Air Grille, 10 x 8
RAT10X10	Teak Return Air Grille, 10 x 10
RAT10X12	Teak Return Air Grille, 10 x 12
RAT10X14	Teak Return Air Grille, 10 x 14
RAT11X8	Teak Return Air Grille, 11 x 8
RAT12X6	Teak Return Air Grille, 12 x 6
RAT12X10	Teak Return Air Grille, 12 x 10
RAT12X12	Teak Return Air Grille, 12 x 12
RAT12X14	Teak Return Air Grille, 12 x 14
RAT14X6	Teak Return Air Grille, 14 x 6
RAT14X7	Teak Return Air Grille, 14 x 7
RAT14X10	Teak Return Air Grille, 14 x 10
RAT14X12	Teak Return Air Grille, 14 x 12
RAT16X6	Teak Return Air Grille, 16 x 6
RAT16X8	Teak Return Air Grille, 16 x 8



EZ RETURN AIR GRILLE, EZ ACCESS INSERT

(Teak Codes shown, blade size in **bold**)

To Specify Another Species Change Species Code and Name in Description

(I.e. RARM7X7, **Mahogany** EZ Return Air Grille, 7 x 7)

(Our most common sizes listed below, many others available)

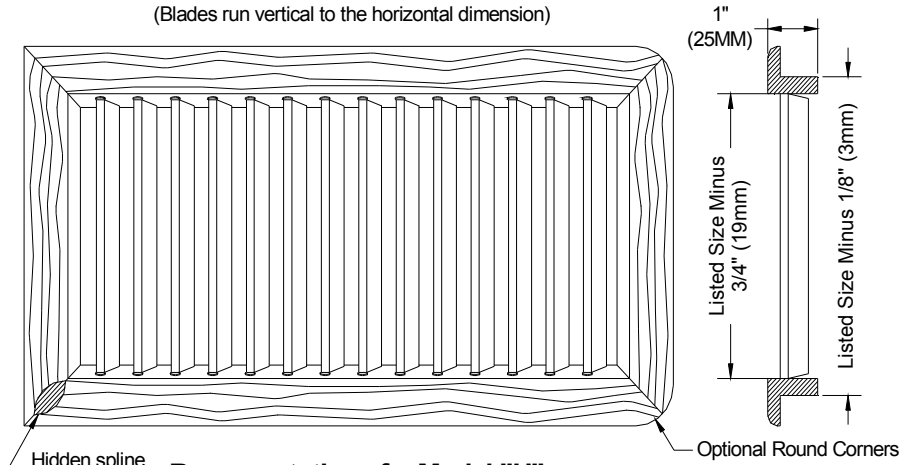
ITEM CODE	DESCRIPTION
RART7X7	Teak EZ Return Air Grille, 7 x 7
RART8X8	Teak EZ Return Air Grille, 8 x 8
RART8X10	Teak EZ Return Air Grille, 8 x 10
RART10X6	Teak EZ Return Air Grille, 10 x 6
RART10X8	Teak EZ Return Air Grille, 10 x 8
RART10X10	Teak EZ Return Air Grille, 10 x 10
RART10X12	Teak EZ Return Air Grille, 10 x 12
RART10X14	Teak EZ Return Air Grille, 10 x 14
RART11X8	Teak EZ Return Air Grille, 11 x 8
RART12X6	Teak EZ Return Air Grille, 12 x 6
RART12X10	Teak EZ Return Air Grille, 12 x 10
RART12X12	Teak EZ Return Air Grille, 12 x 12
RART12X14	Teak EZ Return Air Grille, 12 x 14
RART14X6	Teak EZ Return Air Grille, 14 x 6
RART14X7	Teak EZ Return Air Grille, 14 x 7
RART14X10	Teak EZ Return Air Grille, 14 x 10
RART14X12	Teak EZ Return Air Grille, 14 x 12



V or H, 2-Way Supply

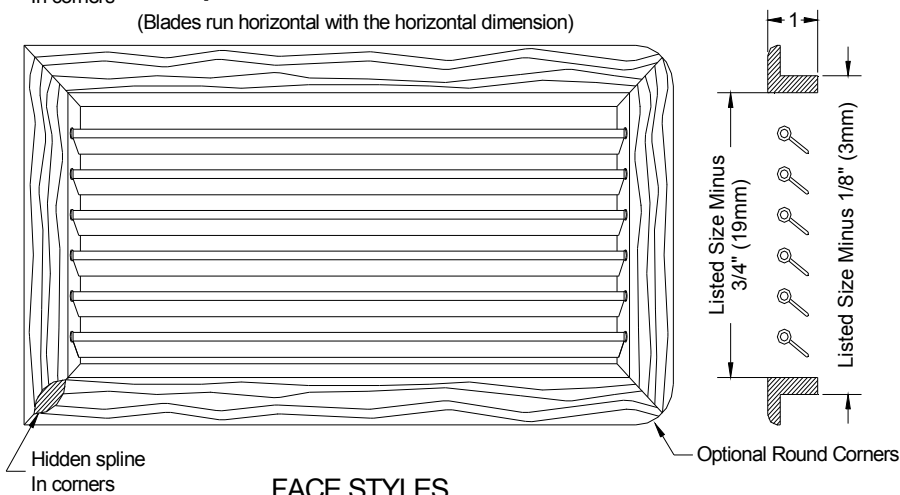
Representative of a Model "V"

(Blades run vertical to the horizontal dimension)



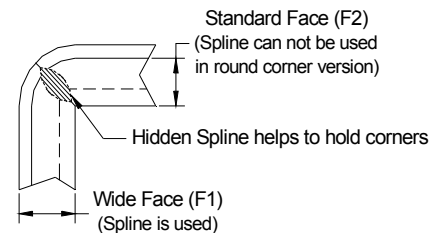
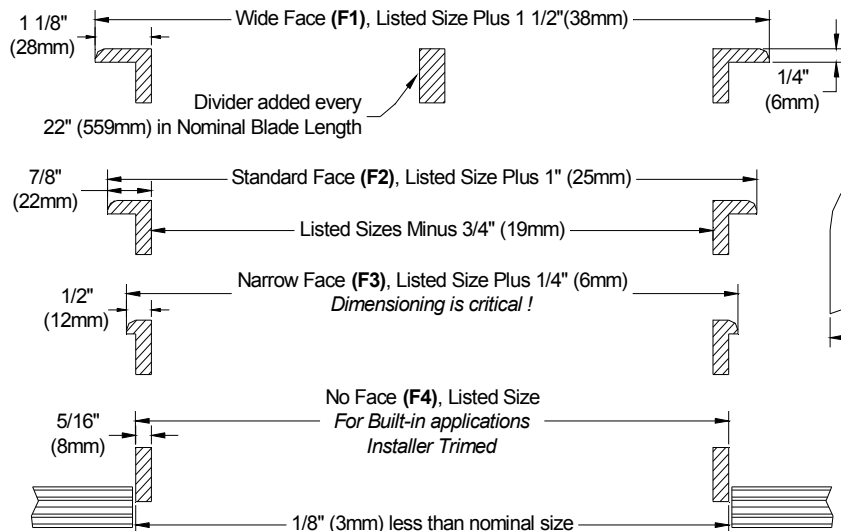
Representative of a Model "H"

(Blades run horizontal with the horizontal dimension)



If you make this side horizontal you now have A Model "H" A Model "V"

FACE STYLES



Optional Round Corners

SUPPLY GRILLE, 2 WAY

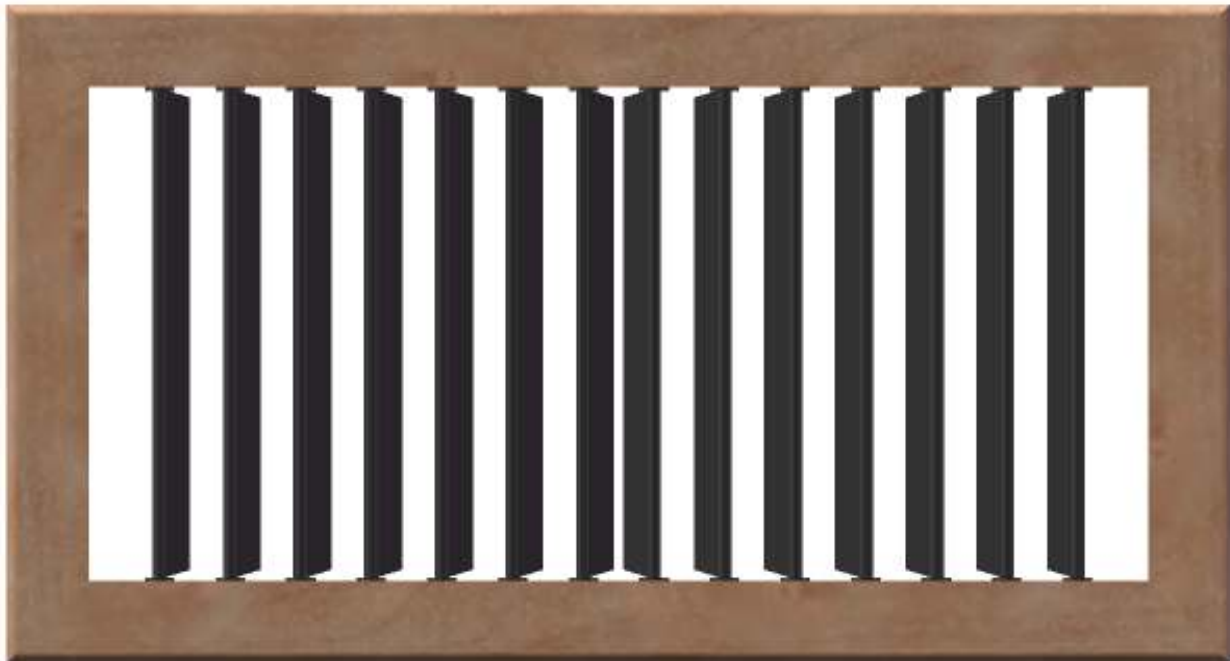
(Teak Codes shown, blade size in **bold**)

To Specify Another Species Change Species Code and Name in Description
(I.e. **VM4X4, Mahogany 2 Way Supply Grille, 4x4**)

(Our most common sizes listed, many others available)

ITEM CODE	DESCRIPTION
VT4X4	Teak 2 Way Supply Grille, 4x 4
VT6X4	Teak 2 Way Supply Grille, 6x 4
VT8X4	Teak 2 Way Supply Grille, 8x 4
VT10X4	Teak 2 Way Supply Grille, 10x 4
VT12X4	Teak 2 Way Supply Grille, 12x 4
VT14X4	Teak 2 Way Supply Grille, 14x 4
VT16X4	Teak 2 Way Supply Grille, 16x 4
VT20X4	Teak 2 Way Supply Grille, 20x 4
VT10X5	Teak 2 Way Supply Grille, 10x 5
VT12X5	Teak 2 Way Supply Grille, 12x 5
VT14X5	Teak 2 Way Supply Grille, 14x 5
VT6X6	Teak 2 Way Supply Grille, 6x 6
VT8X6	Teak 2 Way Supply Grille, 8x 6
VT10X6	Teak 2 Way Supply Grille, 10x 6
VT12X6	Teak 2 Way Supply Grille, 12x 6
VT14X6	Teak 2 Way Supply Grille, 14x 6
VT7X7	Teak 2 Way Supply Grille, 7x 7
VT4X8	Teak 2 Way Supply Grille, 4x 8
VT8X8	Teak 2 Way Supply Grille, 8x 8
VT10X8	Teak 2 Way Supply Grille, 10x 8

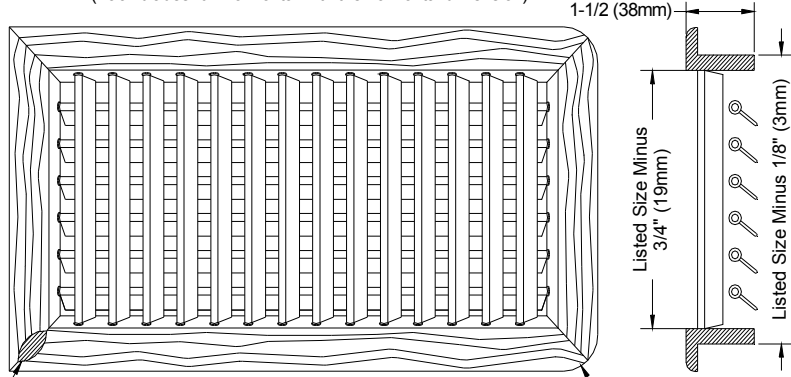
Did you know? The V grille is the same depth as the RA and RAR grilles. Use this grille when you are short on depth.



VH or HV, 4-Way Supply

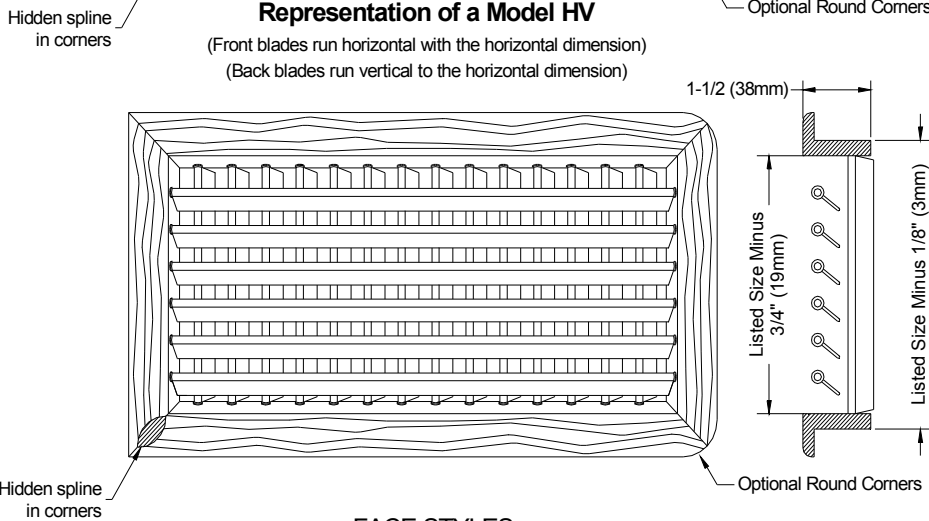
Representation of a Model VH

(Front blades run vertical to the horizontal dimension)
 (Back blades run horizontal with the horizontal dimension)

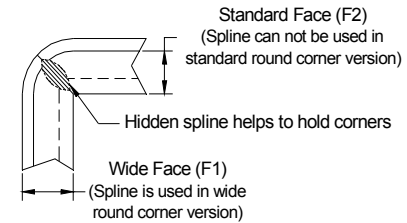
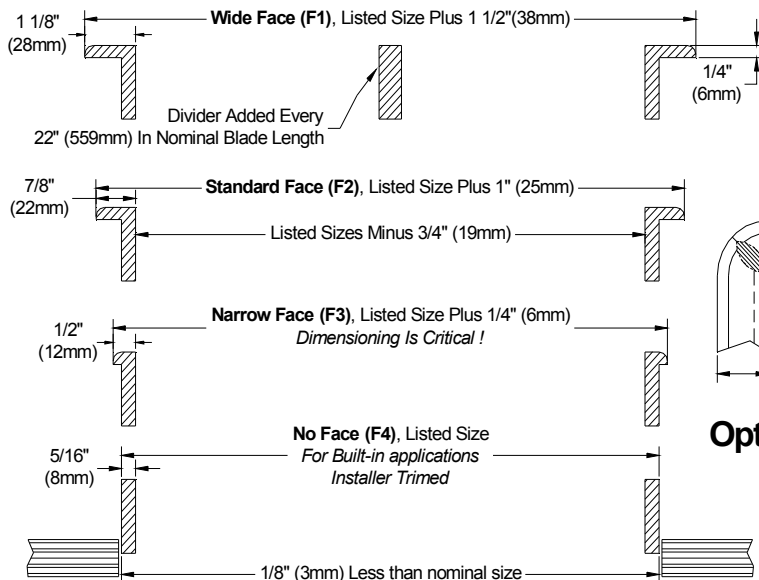


Representation of a Model HV

(Front blades run horizontal with the horizontal dimension)
 (Back blades run vertical to the horizontal dimension)



FACE STYLES



Optional Round Corners

If you make this side horizontal you now have
 A Model HV
 A Model VH

TEAK SUPPLY GRILLE, 4 WAY

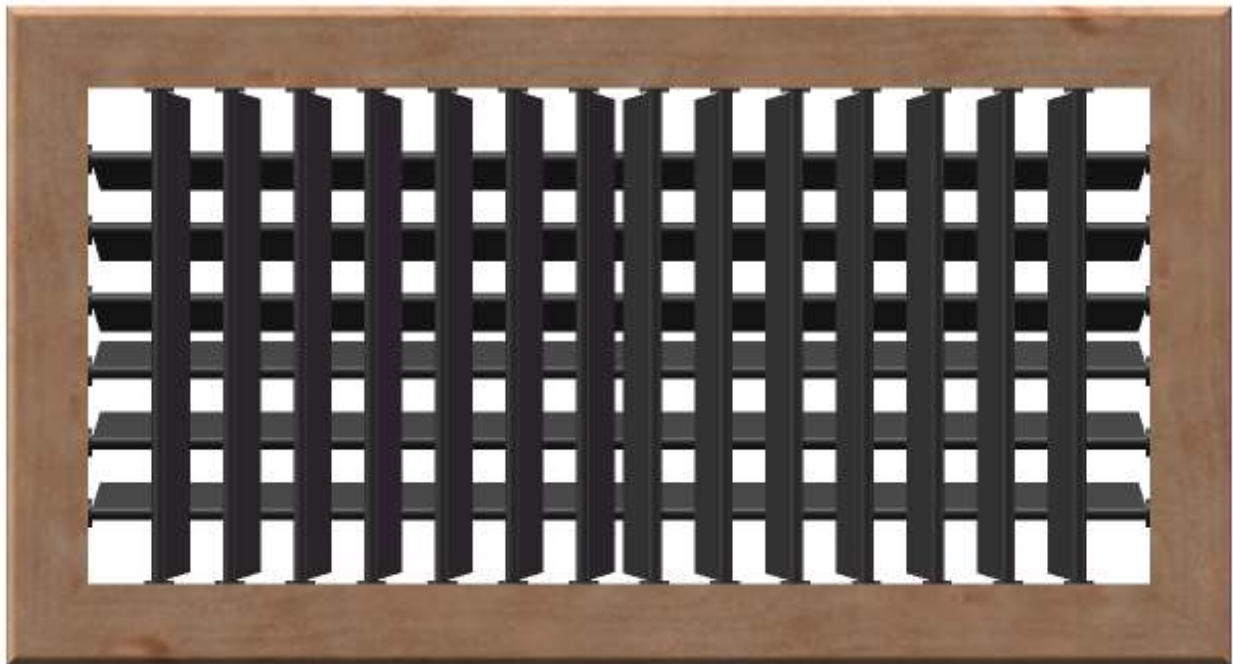
(Our most common sizes, many others available)

(Teak Codes shown, front blade size in **bold**)

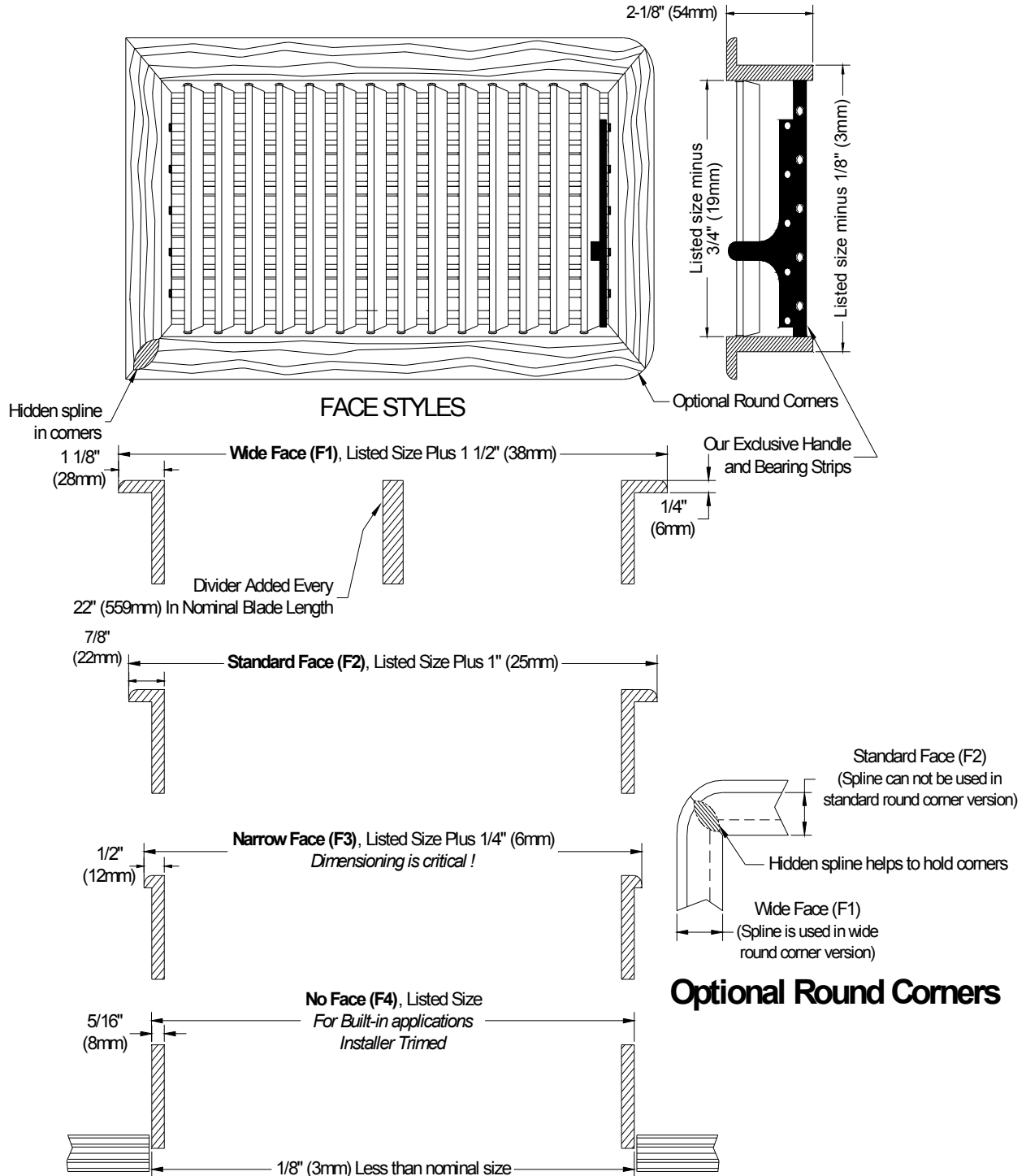
To Specify Another Species Change Species Code and Name in Description
(I.e. VHM4X4, **Mahogany** 4 Way Supply Grille, 4x4)

ITEM CODE	DESCRIPTION
VHT4X4	Teak 4 Way Supply Grille, 4x4
VHT6X4	Teak 4 Way Supply Grille, 6x4
VHT8X4	Teak 4 Way Supply Grille, 8x4
VHT10X4	Teak 4 Way Supply Grille, 10x4
VHT12X4	Teak 4 Way Supply Grille, 12x4
VHT14X4	Teak 4 Way Supply Grille, 14x4
VHT16X4	Teak 4 Way Supply Grille, 16x4
VHT20X4	Teak 4 Way Supply Grille, 20x4
VHT10X5	Teak 4 Way Supply Grille, 10x 5
VHT12X5	Teak 4 Way Supply Grille, 12x 5
VHT14X5	Teak 4 Way Supply Grille, 14x 5
VHT6X6	Teak 4 Way Supply Grille, 6x 6
VHT8X6	Teak 4 Way Supply Grille, 8x 6
VHT10X6	Teak 4 Way Supply Grille, 10x 6
VHT12X6	Teak 4 Way Supply Grille, 12x 6
VHT14X6	Teak 4 Way Supply Grille, 14x 6
VHT7X7	Teak 4 Way Supply Grille, 7x7
VHT4X8	Teak 4 Way Supply Grille, 4x 8
VHT8X8	Teak 4 Way Supply Grille, 8x 8
VHT10X8	Teak 4 Way Supply Grille, 10x 8

Did you know? The last blade that the air hits does the most amount of work. Keep that in mind when you are designing your air control system.



VML, 2-Way Supply W/Damper



SUPPLY GRILLE, 2 WAY W/DAMPER

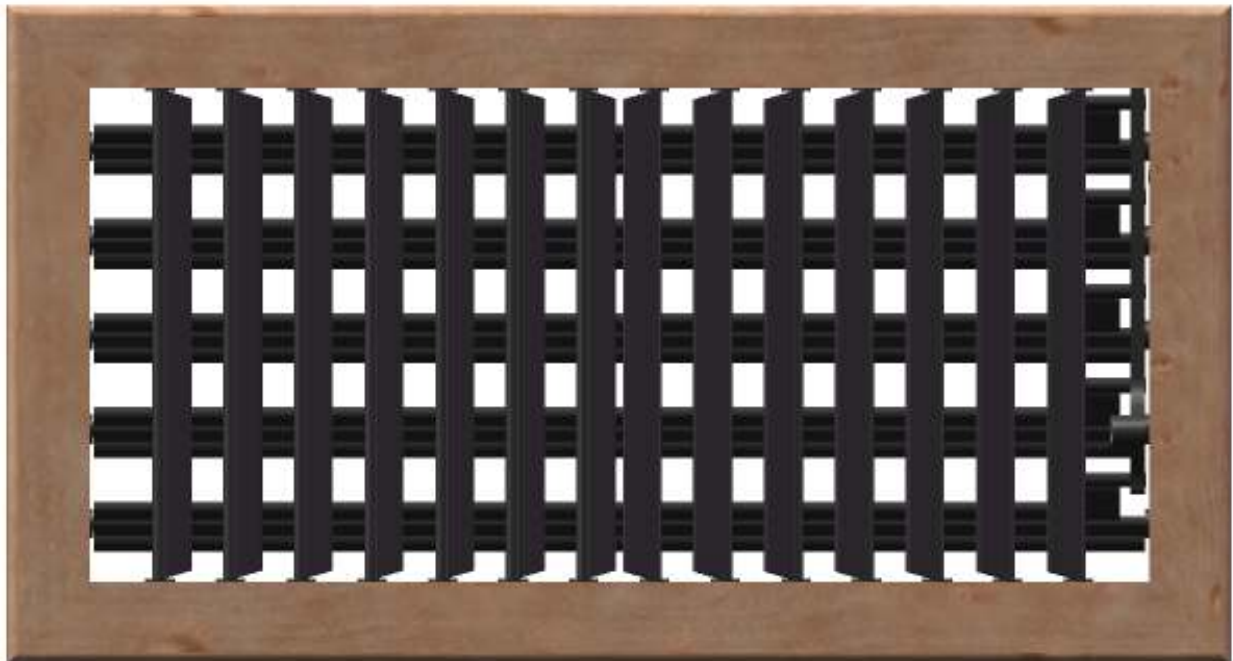
(Our most common sizes, many others available)

(Teak Codes shown, front blade size in **bold**)

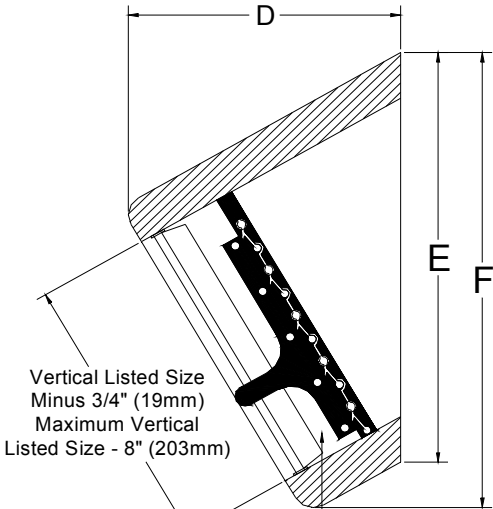
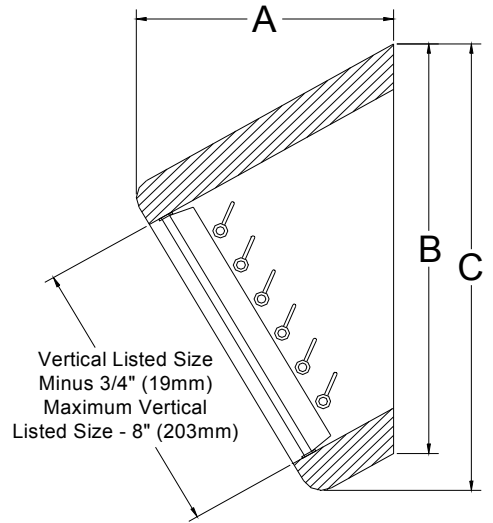
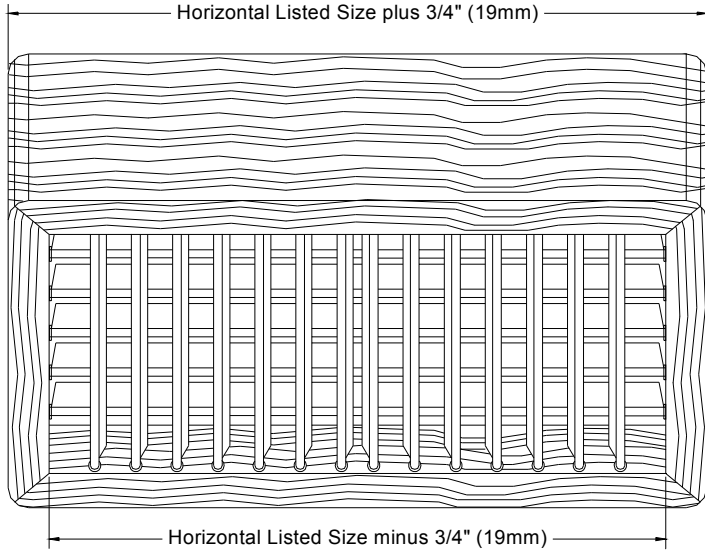
To Specify Another Species Change Species Code and Name in Description
(I.e. VMLM6X3, **Mahogany** 2 Way Supply w/Damper, 6x3)

ITEM CODE	DESCRIPTION
VMLT6X3	Teak 2 Way Supply Grille w/ Damper, 6x 3
VMLT15X3	Teak 2 Way Supply Grille w/ Damper, 15x 3
VMLT4X4	Teak 2 Way Supply Grille w/ Damper, 4x 4
VMLT6X4	Teak 2 Way Supply Grille w/ Damper, 6x 4
VMLT8X4	Teak 2 Way Supply Grille w/ Damper, 8x 4
VMLT10X4	Teak 2 Way Supply Grille w/ Damper, 10x 4
VMLT10X5	Teak 2 Way Supply Grille w/ Damper, 10x 5
VMLT12X5	Teak 2 Way Supply Grille w/ Damper, 12x 5
VMLT6X6	Teak 2 Way Supply Grille w/ Damper, 6x 6
VMLT8X6	Teak 2 Way Supply Grille w/ Damper, 8x 6
VMLT10X6	Teak 2 Way Supply Grille w/ Damper, 10x 6
VMLT12X6	Teak 2 Way Supply Grille w/ Damper, 12x 6
VMLT14X6	Teak 2 Way Supply Grille w/ Damper, 14x 6
VMLT4X8	Teak 2 Way Supply Grille w/ Damper, 4x 8
VMLT8X8	Teak 2 Way Supply Grille w/ Damper, 8x 8
VMLT10X8	Teak 2 Way Supply Grille w/ Damper, 10x 8
VMLT8X10	Teak 2 Way Supply Grille w/ Damper, 8x 10

Did you know? You can order these grilles in fraction sizes but please note that if the second number is a fraction there will be a space on either side of the damper blades when fully closed.



WG - 30 Degree 4 Way Supply Wedge WGML - 30 Degree 2 Way Supply Wedge W/Damper



The WGML Uses Our Exclusive Handle and Bearing Strips

Wedge Dimensions for Nominal Listed Depth (Varies Some)

NOM	A	B	C	D	E	F
4	3-5/8	5-1/2	6-1/8	4-1/2	5-1/2	6-1/2
5	4-1/8	6-5/8	7-1/4	4-3/4	6-5/8	7-3/4
6	4-5/8	7-3/4	8-3/8	5-3/8	7-3/4	9
7	5-1/8	9	9-3/4	6	9	10-1/4
8	5-5/8	10-1/8	10-3/4	7-5/8	10-1/8	11-1/2

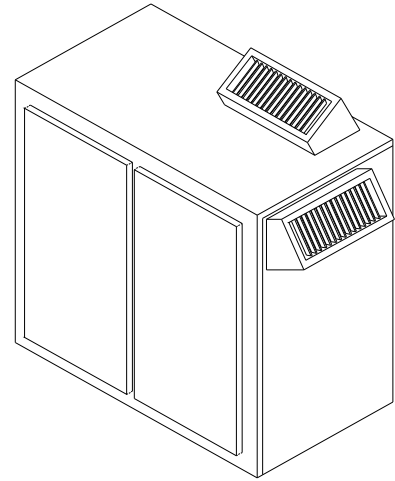
WG — 30 Degree 4 Way Supply Wedge
WGML — 30 Degree 2 Way W/Damper Supply Wedge

(Our most common sizes, others available)

(Teak Codes shown, front blade size in **bold**)

To Specify Another Species Change Species Code and Name in Description
 (I.e. WGM4X4, **Mahogany** Wedge Supply Grille, 4x4)

ITEM CODE	DESCRIPTION
WGT4X4	Teak Wedge Supply Grille, 4x4
WGT6X4	Teak Wedge Supply Grille, 6x4
WGT8X4	Teak Wedge Supply Grille, 8x4
WGT10X4	Teak Wedge Supply Grille, 10x4
WGT12X4	Teak Wedge Supply Grille, 12x4
WGT8X5	Teak Wedge Supply Grille, 8x5
WGT10X5	Teak Wedge Supply Grille, 10x5
WGT12X5	Teak Wedge Supply Grille, 12x5
WGT14X5	Teak Wedge Supply Grille, 14x5
WGT8X6	Teak Wedge Supply Grille, 8x6
WGT10X6	Teak Wedge Supply Grille, 10x6
WGT12X6	Teak Wedge Supply Grille, 12x6
WGT7X7	Teak Wedge Supply Grille, 7x7
WGT10X7	Teak Wedge Supply Grille, 10x7



ITEM CODE	DESCRIPTION
WGMLT4X4	Teak Damper Wedge Supply Grille, 4x4
WGMLT6X4	Teak Damper Wedge Supply Grille, 6x4
WGMLT8X4	Teak Damper Wedge Supply Grille, 8x4
WGMLT10X4	Teak Damper Wedge Supply Grille, 10x4
WGMLT12X4	Teak Damper Wedge Supply Grille, 12x4
WGMLT8X5	Teak Damper Wedge Supply Grille, 8x5
WGMLT10X5	Teak Damper Wedge Supply Grille, 10x5
WGMLT12X5	Teak Damper Wedge Supply Grille, 12x5
WGMLT14X5	Teak Damper Wedge Supply Grille, 14x5
WGMLT8X6	Teak Damper Wedge Supply Grille, 8x6
WGMLT10X6	Teak Damper Wedge Supply Grille, 10x6
WGMLT12X6	Teak Damper Wedge Supply Grille, 12x6
WGMLT7X7	Teak Damper Wedge Supply Grille, 7x7
WGMLT10X7	Teak Damper Wedge Supply Grille, 10x7

Did you know? You can install wedges on horizontal or vertical surfaces to solve difficult airflow problems.

WG Wedge Supply Grille

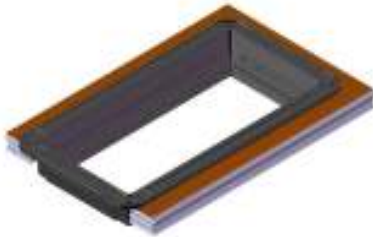
WGML Wedge Supply Grille



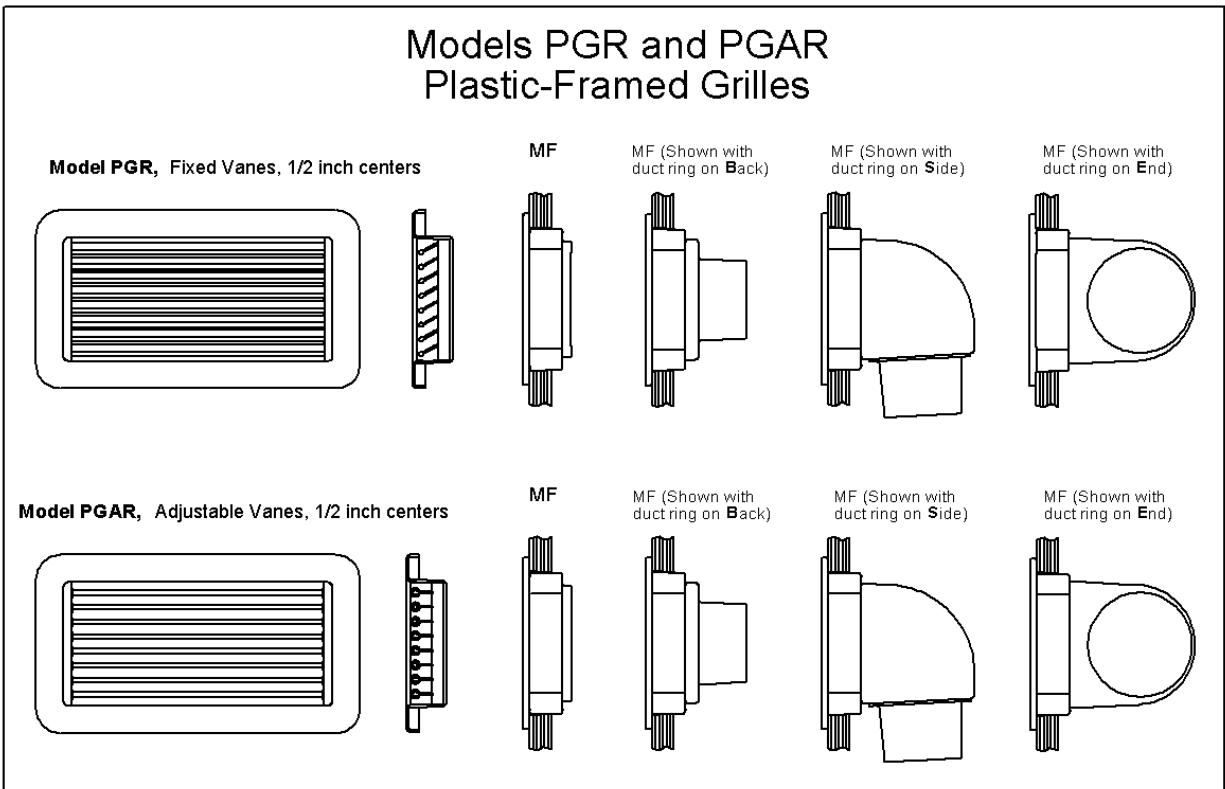
Plastic-Framed Grilles

Product Overview

Our plastic-framed grille offers the HVAC industry a unique and functional product. The grille is constructed standard with a smooth white UV ABS vacuum-formed frame and white baked-on mill-painted aluminum blades. The blades are installed as fixed (PG) or adjustable (PGA) into an ABS plastic track. An optional black haircel ABS with black baked-on mill-painted blades is available (insert the code letters BK after the grille size to any of the product codes). Custom paint colors are also available at additional costs.



Installed into the sides of the grille are stainless steel spring catches. They secure the blade/track assembly inside the grille frame but their primary purpose is more functional. They hold the grille into what we call a mounting frame. This mounting frame (MF) is constructed of four injection-molded corners and four pieces of extruded sides glued together. It is mounted from the finished side of the wall and then the grille is “snapped” into it. Grille removal is just as easy.



Model PGR

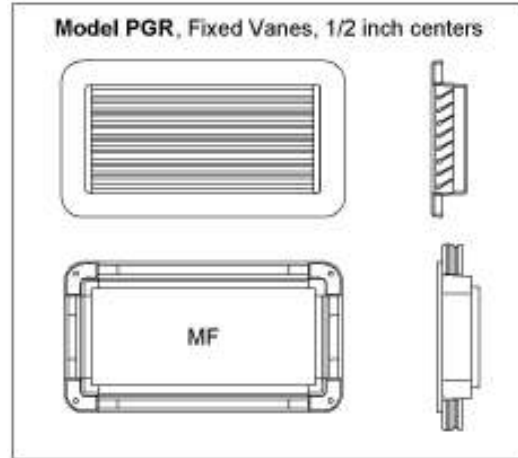
Unit includes grille and mounting frame (some w/ rings)

Application: Return (Unfiltered) or Supply Air (Fixed Blades)

(Fixed 30 Degree Blade size in **bold**)

Insert "**BK**" after grille size for black haircel finish
(i.e. PG4X4**BKR**)

(Not all items shown are stocked, call us if you do not see what you need. We may be able to build it.)



ITEM CODE

DESCRIPTION

PG4X4R	PG Grille White w/Mounting Frame, 4x4
PG4X4R-3B	PG Grille White w/Mounting Frame, 4x4 , 3" Ring Back
PG4X4R-3S	PG Grille White w/Mounting Frame, 4x4 , 3" Ring Side
PG4X6R	PG Grille White w/Mounting Frame, 4x6
PG4X8R	PG Grille White w/Mounting Frame, 4x8
PG4X8R-4B	PG Grille White w/Mounting Frame, 4x8 , 4" Ring Back
PG4X8R-5B	PG Grille White w/Mounting Frame, 4x8 , 5" Ring Back
PG4X8R-4S	PG Grille White w/Mounting Frame, 4x8 , 4" Ring Side
PG4X8R-5S	PG Grille White w/Mounting Frame, 4x8 , 5" Ring Side
PG4X10R	PG Grille White w/Mounting Frame, 4x10
PG4X10R-4B	PG Grille White w/Mounting Frame, 4x10 , 4" Ring Back
PG4X10R-5B	PG Grille White w/Mounting Frame, 4x10 , 5" Ring Back
PG4X10R-4S	PG Grille White w/Mounting Frame, 4x10 , 4" Ring Side
PG4X10R-5S	PG Grille White w/Mounting Frame, 4x10 , 5" Ring Side
PG4X12R	PG Grille White w/Mounting Frame, 4x12
PG4X12R-4B	PG Grille White w/Mounting Frame, 4x12 , 4" Ring Back
PG4X12R-5B	PG Grille White w/Mounting Frame, 4x12 , 5" Ring Back
PG4X12R-4S	PG Grille White w/Mounting Frame, 4x12 , 4" Ring Side
PG4X12R-5S	PG Grille White w/Mounting Frame, 4x12 , 5" Ring Side
PG4X16R	PG Grille White w/Mounting Frame, 4x16
PG4X20R	PG Grille White w/Mounting Frame, 4x20
PG4X20R-4S	PG Grille White w/Mounting Frame, 4x20 , 4" Ring Side
PG4X20R-5S	PG Grille White w/Mounting Frame, 4x20 , 5" Ring Side
PG4X20R-6S	PG Grille White w/Mounting Frame, 4x20 , 6" Ring Side
PG5X5R	PG Grille White w/Mounting Frame, 5x5
PG5X5R-3B	PG Grille White w/Mounting Frame, 5x5 , 3" Ring Back
PG5X5R-4B	PG Grille White w/Mounting Frame, 5x5 , 4" Ring Back
PG5X5R-3S	PG Grille White w/Mounting Frame, 5x5 , 3" Ring Side
PG5X5R-4S	PG Grille White w/Mounting Frame, 5x5 , 4" Ring Side
PG5X10R	PG Grille White w/Mounting Frame, 5x10
PG5X10R-4B	PG Grille White w/Mounting Frame, 5x10 , 4" Ring Back
PG5X10R-5B	PG Grille White w/Mounting Frame, 5x10 , 5" Ring Back
PG5X10R-6B	PG Grille White w/Mounting Frame, 5x10 , 6" Ring Back
PG5X10R-4S	PG Grille White w/Mounting Frame, 5x10 , 4" Ring Side
PG5X10R-5S	PG Grille White w/Mounting Frame, 5x10 , 5" Ring Side
PG5X10R-6S	PG Grille White w/Mounting Frame, 5x10 , 6" Ring Side
PG5X12R	PG Grille White w/Mounting Frame, 5x12
PG5X12R-4B	PG Grille White w/Mounting Frame, 5x12 , 4" Ring Back

PG5X12R-5B	PG Grille White w/Mounting Frame, 5x12, 5" Ring Back
PG5X12R-6B	PG Grille White w/Mounting Frame, 5x12, 6" Ring Back
PG5X12R-4S	PG Grille White w/Mounting Frame, 5x12, 4" Ring Side
PG5X12R-5S	PG Grille White w/Mounting Frame, 5x12, 5" Ring Side
PG5X12R-6S	PG Grille White w/Mounting Frame, 5x12, 6" Ring Side
PG6X4R	PG Grille White w/Mounting Frame, 6x4
PG6X6R	PG Grille White w/Mounting Frame, 6x6
PG6X6R-4B	PG Grille White w/Mounting Frame, 6x6, 4" Ring Back
PG6X6R-5B	PG Grille White w/Mounting Frame, 6x6, 5" Ring Back
PG6X6R-4S	PG Grille White w/Mounting Frame, 6x6, 4" Ring Side
PG6X6R-5S	PG Grille White w/Mounting Frame, 6x6, 5" Ring Side
PG6X10R	PG Grille White w/Mounting Frame, 6x10
PG6X10R-4B	PG Grille White w/Mounting Frame, 6x10, 4" Ring Back
PG6X10R-5B	PG Grille White w/Mounting Frame, 6x10, 5" Ring Back
PG6X10R-6B	PG Grille White w/Mounting Frame, 6x10, 6" Ring Back
PG6X10R-4S	PG Grille White w/Mounting Frame, 6x10, 4" Ring Side
PG6X10R-5S	PG Grille White w/Mounting Frame, 6x10, 5" Ring Side
PG6X10R-6S	PG Grille White w/Mounting Frame, 6x10, 6" Ring Side
PG6X12R	PG Grille White w/Mounting Frame, 6x12
PG6X12R-4B	PG Grille White w/Mounting Frame, 6x12, 4" Ring Back
PG6X12R-5B	PG Grille White w/Mounting Frame, 6x12, 5" Ring Back
PG6X12R-6B	PG Grille White w/Mounting Frame, 6x12, 6" Ring Back
PG6X12R-7B	PG Grille White w/Mounting Frame, 6x12, 7" Ring Back
PG8X4R	PG Grille White w/Mounting Frame, 8x4
PG8X4R-4B	PG Grille White w/Mounting Frame, 8x4, 4" Ring Back
PG8X4R-5B	PG Grille White w/Mounting Frame, 8x4, 5" Ring Back
PG8X4R-4S	PG Grille White w/Mounting Frame, 8x4, 4" Ring Side
PG8X4R-5S	PG Grille White w/Mounting Frame, 8x4, 5" Ring Side
PG8X8R	PG Grille White w/Mounting Frame, 8x8
PG8X10R	PG Grille White w/Mounting Frame, 8x10
PG8X10R-5B	PG Grille White w/Mounting Frame, 8x10, 5" Ring Back
PG8X10R-6B	PG Grille White w/Mounting Frame, 8x10, 6" Ring Back
PG8X10R-7B	PG Grille White w/Mounting Frame, 8x10, 7" Ring Back
PG8X16R	PG Grille White w/Mounting Frame, 8x16
PG10X4R	PG Grille White w/Mounting Frame, 10x4
PG10X4R-4B	PG Grille White w/Mounting Frame, 10x4, 4" Ring Back
PG10X4R-5B	PG Grille White w/Mounting Frame, 10x4, 5" Ring Back
PG10X4R-4S	PG Grille White w/Mounting Frame, 10x4, 4" Ring Side
PG10X4R-5S	PG Grille White w/Mounting Frame, 10x4, 5" Ring Side
PG10X5R	PG Grille White w/Mounting Frame, 10x5
PG10X5R-4B	PG Grille White w/Mounting Frame, 10x5, 4" Ring Back
PG10X5R-5B	PG Grille White w/Mounting Frame, 10x5, 5" Ring Back
PG10X5R-6B	PG Grille White w/Mounting Frame, 10x5, 6" Ring Back
PG10X5R-4S	PG Grille White w/Mounting Frame, 10x5, 4" Ring Side
PG10X5R-5S	PG Grille White w/Mounting Frame, 10x5, 5" Ring Side
PG10X5R-6S	PG Grille White w/Mounting Frame, 10x5, 6" Ring Side
PG10X6R	PG Grille White w/Mounting Frame, 10x6
PG10X6R-5B	PG Grille White w/Mounting Frame, 10x6, 5" Ring Back
PG10X6R-6B	PG Grille White w/Mounting Frame, 10x6, 6" Ring Back
PG10X6R-5S	PG Grille White w/Mounting Frame, 10x6, 5" Ring Side
PG10X6R-6S	PG Grille White w/Mounting Frame, 10x6, 6" Ring Side
PG10X8R	PG Grille White w/Mounting Frame, 10x8
PG10X8R-5B	PG Grille White w/Mounting Frame, 10x8, 5" Ring Back
PG10X8R-6B	PG Grille White w/Mounting Frame, 10x8, 6" Ring Back
PG10X8R-7B	PG Grille White w/Mounting Frame, 10x8, 7" Ring Back

PG10X10R	PG Grille White w/Mounting Frame, 10x10
PG10X14R	PG Grille White w/Mounting Frame, 10x14
PG12X4R	PG Grille White w/Mounting Frame, 12x4
PG12X4R-4B	PG Grille White w/Mounting Frame, 12x4 , 4" Ring Back
PG12X4R-5B	PG Grille White w/Mounting Frame, 12x4 , 5" Ring Back
PG12X4R-4S	PG Grille White w/Mounting Frame, 12x4 , 4" Ring Side
PG12X4R-5S	PG Grille White w/Mounting Frame, 12x4 , 5" Ring Side
PG12X5R	PG Grille White w/Mounting Frame, 12x5
PG12X5R-4B	PG Grille White w/Mounting Frame, 12x5 , 4" Ring Back
PG12X5R-5B	PG Grille White w/Mounting Frame, 12x5 , 5" Ring Back
PG12X5R-6B	PG Grille White w/Mounting Frame, 12x5 , 6" Ring Back
PG12X5R-4S	PG Grille White w/Mounting Frame, 12x5 , 4" Ring Side
PG12X5R-5S	PG Grille White w/Mounting Frame, 12x5 , 5" Ring Side
PG12X5R-6S	PG Grille White w/Mounting Frame, 12x5 , 6" Ring Side
PG12X6R	PG Grille White w/Mounting Frame, 12x6
PG12X6R-4B	PG Grille White w/Mounting Frame, 12x6 , 4" Ring Back
PG12X6R-5B	PG Grille White w/Mounting Frame, 12x6 , 5" Ring Back
PG12X6R-6B	PG Grille White w/Mounting Frame, 12x6 , 6" Ring Back
PG12X6R-7B	PG Grille White w/Mounting Frame, 12x6 , 7" Ring Back
PG12X12R	PG Grille White w/Mounting Frame, 12x12
PG12X14R	PG Grille White w/Mounting Frame, 12x14
PG14X10R	PG Grille White w/Mounting Frame, 14x10
PG14X12R	PG Grille White w/Mounting Frame, 14x12
PG16X4R	PG Grille White w/Mounting Frame, 16x4
PG16X8R	PG Grille White w/Mounting Frame, 16x8
PG20X4R	PG Grille White w/Mounting Frame, 20x4
PG20X4R-4S	PG Grille White w/Mounting Frame, 20x4 , 4" Ring Side
PG20X4R-5S	PG Grille White w/Mounting Frame, 20x4 , 5" Ring Side
PG20X4R-6S	PG Grille White w/Mounting Frame, 20x4 , 6" Ring Side

Model PGRF

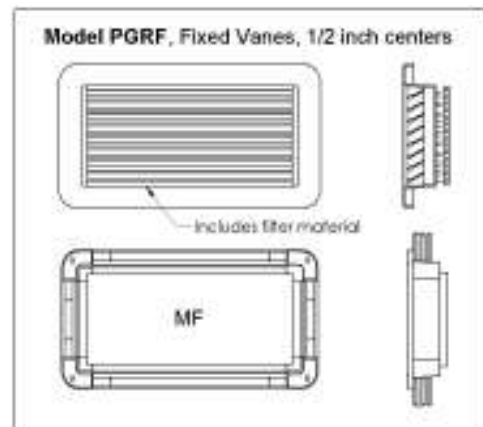
Unit includes grille, mounting frame and filter

Application: Return-Air Only

(Fixed 30 Degree Blade size in **bold**)

Insert "**BK**" after grille size for black haircel finish
(i.e. PG4X4**BK**RF)

(Not all items shown are stocked, call us if you do not see what you need. We may be able to build it.)



ITEM CODE

DESCRIPTION

PG4X4RF	PG Grille White w/Mounting Frame & Filter, 4x4
PG4X6RF	PG Grille White w/Mounting Frame & Filter, 4x6
PG4X8RF	PG Grille White w/Mounting Frame & Filter, 4x8
PG4X10RF	PG Grille White w/Mounting Frame & Filter, 4x10
PG4X12RF	PG Grille White w/Mounting Frame & Filter, 4x12
PG4X16RF	PG Grille White w/Mounting Frame & Filter, 4x16
PG4X20RF	PG Grille White w/Mounting Frame & Filter, 4x20
PG5X5RF	PG Grille White w/Mounting Frame & Filter, 5x5

PG5X10RF	PG Grille White w/Mounting Frame & Filter, 5x10
PG5X12RF	PG Grille White w/Mounting Frame & Filter, 5x12
PG6X4RF	PG Grille White w/Mounting Frame & Filter, 6x4
PG6X6RF	PG Grille White w/Mounting Frame & Filter, 6x6
PG6X10RF	PG Grille White w/Mounting Frame & Filter, 6x10
PG6X12RF	PG Grille White w/Mounting Frame & Filter, 6x12
PG8X4RF	PG Grille White w/Mounting Frame & Filter, 8x4
PG8X8RF	PG Grille White w/Mounting Frame & Filter, 8x8
PG8X10RF	PG Grille White w/Mounting Frame & Filter, 8x10
PG8X16RF	PG Grille White w/Mounting Frame & Filter, 8x16
PG10X4RF	PG Grille White w/Mounting Frame & Filter, 10x4
PG10X5RF	PG Grille White w/Mounting Frame & Filter, 10x5
PG10X6RF	PG Grille White w/Mounting Frame & Filter, 10x6
PG10X8RF	PG Grille White w/Mounting Frame & Filter, 10x8
PG10X10RF	PG Grille White w/Mounting Frame & Filter, 10x10
PG10X14RF	PG Grille White w/Mounting Frame & Filter, 10x14
PG12X4RF	PG Grille White w/Mounting Frame & Filter, 12x4
PG12X5RF	PG Grille White w/Mounting Frame & Filter, 12x5
PG12X6RF	PG Grille White w/Mounting Frame & Filter, 12x6
PG12X12RF	PG Grille White w/Mounting Frame & Filter, 12x12
PG12X14RF	PG Grille White w/Mounting Frame & Filter, 12x14
PG14X10RF	PG Grille White w/Mounting Frame & Filter, 14x10
PG14X12RF	PG Grille White w/Mounting Frame & Filter, 14x12
PG16X4RF	PG Grille White w/Mounting Frame & Filter, 16x4
PG16X8RF	PG Grille White w/Mounting Frame & Filter, 16x8
PG20X4RF	PG Grille White w/Mounting Frame & Filter, 20x4

Model PGAR

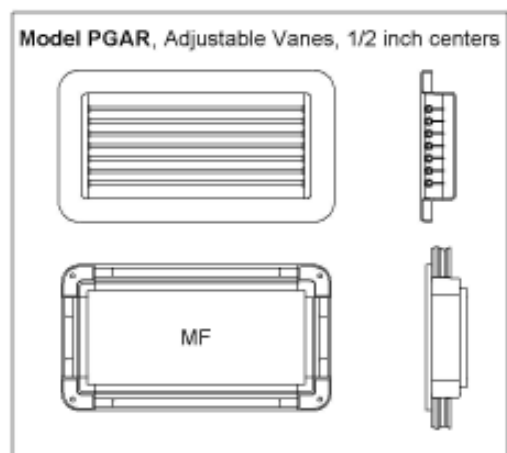
Unit includes grille and mounting frame (some w/ rings)

Application: Supply Air (Adjustable Blades)

(Blade size in **bold**)

Insert "**BK**" after grille size for black haircel finish
(i.e. **PGA4X4BK**R)

(Not all items shown are stocked, call us if you do not see what you need. We may be able to build it.)



ITEM CODE

DESCRIPTION

PGA4X4R	PGA Grille White w/Mounting Frame, 4x4
PGA4X4R-3B	PGA Grille White w/Mounting Frame, 4x4 , 3" Ring Back
PGA4X4R-3S	PGA Grille White w/Mounting Frame, 4x4 , 3" Ring Side
PGA4X6R	PGA Grille White w/Mounting Frame, 4x6
PGA4X8R	PGA Grille White w/Mounting Frame, 4x8
PGA4X8R-4B	PGA Grille White w/Mounting Frame, 4x8 , 4" Ring Back
PGA4X8R-5B	PGA Grille White w/Mounting Frame, 4x8 , 5" Ring Back
PGA4X8R-4S	PGA Grille White w/Mounting Frame, 4x8 , 4" Ring Side
PGA4X8R-5S	PGA Grille White w/Mounting Frame, 4x8 , 5" Ring Side
PGA4X10R	PGA Grille White w/Mounting Frame, 4x10
PGA4X10R-4B	PGA Grille White w/Mounting Frame, 4x10 , 4" Ring Back

PGA4X10R-5B	PGA Grille White w/Mounting Frame, 4x10, 5" Ring Back
PGA4X10R-4S	PGA Grille White w/Mounting Frame, 4x10, 4" Ring Side
PGA4X10R-5S	PGA Grille White w/Mounting Frame, 4x10, 5" Ring Side
PGA4X12R	PGA Grille White w/Mounting Frame, 4x12
PGA4X12R-4B	PGA Grille White w/Mounting Frame, 4x12, 4" Ring Back
PGA4X12R-5B	PGA Grille White w/Mounting Frame, 4x12, 5" Ring Back
PGA4X12R-4S	PGA Grille White w/Mounting Frame, 4x12, 4" Ring Side
PGA4X12R-5S	PGA Grille White w/Mounting Frame, 4x12, 5" Ring Side
PGA4X16R	PGA Grille White w/Mounting Frame, 4x16
PGA4X20R	PGA Grille White w/Mounting Frame, 4x20
PGA4X20R-4S	PGA Grille White w/Mounting Frame, 4x20, 4" Ring Side
PGA4X20R-5S	PGA Grille White w/Mounting Frame, 4x20, 5" Ring Side
PGA4X20R-6S	PGA Grille White w/Mounting Frame, 4x20, 6" Ring Side
PGA5X5R	PGA Grille White w/Mounting Frame, 5x5
PGA5X5R-3B	PGA Grille White w/Mounting Frame, 5x5, 3" Ring Back
PGA5X5R-4B	PGA Grille White w/Mounting Frame, 5x5, 4" Ring Back
PGA5X5R-3S	PGA Grille White w/Mounting Frame, 5x5, 3" Ring Side
PGA5X5R-4S	PGA Grille White w/Mounting Frame, 5x5, 4" Ring Side
PGA5X10R	PGA Grille White w/Mounting Frame, 5x10
PGA5X10R-4B	PGA Grille White w/Mounting Frame, 5x10, 4" Ring Back
PGA5X10R-5B	PGA Grille White w/Mounting Frame, 5x10, 5" Ring Back
PGA5X10R-6B	PGA Grille White w/Mounting Frame, 5x10, 6" Ring Back
PGA5X10R-4S	PGA Grille White w/Mounting Frame, 5x10, 4" Ring Side
PGA5X10R-5S	PGA Grille White w/Mounting Frame, 5x10, 5" Ring Side
PGA5X10R-6S	PGA Grille White w/Mounting Frame, 5x10, 6" Ring Side
PGA5X12R	PGA Grille White w/Mounting Frame, 5x12
PGA5X12R-4B	PGA Grille White w/Mounting Frame, 5x12, 4" Ring Back
PGA5X12R-5B	PGA Grille White w/Mounting Frame, 5x12, 5" Ring Back
PGA5X12R-6B	PGA Grille White w/Mounting Frame, 5x12, 6" Ring Back
PGA5X12R-4S	PGA Grille White w/Mounting Frame, 5x12, 4" Ring Side
PGA5X12R-5S	PGA Grille White w/Mounting Frame, 5x12, 5" Ring Side
PGA5X12R-6S	PGA Grille White w/Mounting Frame, 5x12, 6" Ring Side
PGA6X4R	PGA Grille White w/Mounting Frame, 6x4
PGA6X6R	PGA Grille White w/Mounting Frame, 6x6
PGA6X6R-4B	PGA Grille White w/Mounting Frame, 6x6, 4" Ring Back
PGA6X6R-5B	PGA Grille White w/Mounting Frame, 6x6, 5" Ring Back
PGA6X6R-4S	PGA Grille White w/Mounting Frame, 6x6, 4" Ring Side
PGA6X6R-5S	PGA Grille White w/Mounting Frame, 6x6, 5" Ring Side
PGA6X10R	PGA Grille White w/Mounting Frame, 6x10
PGA6X10R-4B	PGA Grille White w/Mounting Frame, 6x10, 4" Ring Back
PGA6X10R-5B	PGA Grille White w/Mounting Frame, 6x10, 5" Ring Back
PGA6X10R-6B	PGA Grille White w/Mounting Frame, 6x10, 6" Ring Back
PGA6X10R-4S	PGA Grille White w/Mounting Frame, 6x10, 4" Ring Side
PGA6X10R-5S	PGA Grille White w/Mounting Frame, 6x10, 5" Ring Side
PGA6X10R-6S	PGA Grille White w/Mounting Frame, 6x10, 6" Ring Side
PGA6X12R	PGA Grille White w/Mounting Frame, 6x12
PGA6X12R-4B	PGA Grille White w/Mounting Frame, 6x12, 4" Ring Back
PGA6X12R-5B	PGA Grille White w/Mounting Frame, 6x12, 5" Ring Back
PGA6X12R-6B	PGA Grille White w/Mounting Frame, 6x12, 6" Ring Back
PGA6X12R-7B	PGA Grille White w/Mounting Frame, 6x12, 7" Ring Back
PGA8X4R	PGA Grille White w/Mounting Frame, 8x4
PGA8X4R-4B	PGA Grille White w/Mounting Frame, 8x4, 4" Ring Back
PGA8X4R-5B	PGA Grille White w/Mounting Frame, 8x4, 5" Ring Back
PGA8X4R-4S	PGA Grille White w/Mounting Frame, 8x4, 4" Ring Side
PGA8X4R-5S	PGA Grille White w/Mounting Frame, 8x4, 5" Ring Side
PGA8X8R	PGA Grille White w/Mounting Frame, 8x8

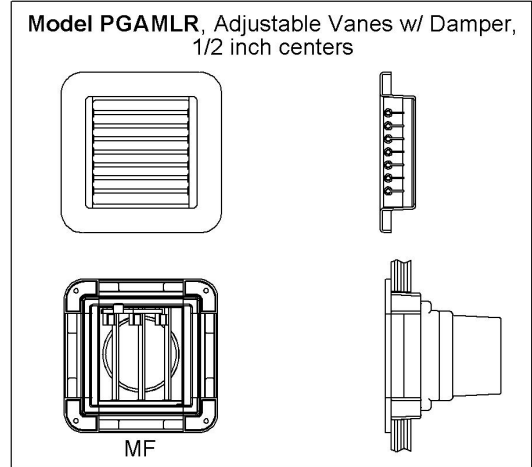
PGA8X10R	PGA Grille White w/Mounting Frame, 8x10
PGA8X10R-5B	PGA Grille White w/Mounting Frame, 8x10 , 5" Ring Back
PGA8X10R-6B	PGA Grille White w/Mounting Frame, 8x10 , 6" Ring Back
PGA8X10R-7B	PGA Grille White w/Mounting Frame, 8x10 , 7" Ring Back
PGA8X16R	PGA Grille White w/Mounting Frame, 8x16
PGA10X4R	PGA Grille White w/Mounting Frame, 10x4
PGA10X4R-4B	PGA Grille White w/Mounting Frame, 10x4 , 4" Ring Back
PGA10X4R-5B	PGA Grille White w/Mounting Frame, 10x4 , 5" Ring Back
PGA10X4R-4S	PGA Grille White w/Mounting Frame, 10x4 , 4" Ring Side
PGA10X4R-5S	PGA Grille White w/Mounting Frame, 10x4 , 5" Ring Side
PGA10X5R	PGA Grille White w/Mounting Frame, 10x5
PGA10X5R-4B	PGA Grille White w/Mounting Frame, 10x5 , 4" Ring Back
PGA10X5R-5B	PGA Grille White w/Mounting Frame, 10x5 , 5" Ring Back
PGA10X5R-6B	PGA Grille White w/Mounting Frame, 10x5 , 6" Ring Back
PGA10X5R-4S	PGA Grille White w/Mounting Frame, 10x5 , 4" Ring Side
PGA10X5R-5S	PGA Grille White w/Mounting Frame, 10x5 , 5" Ring Side
PGA10X5R-6S	PGA Grille White w/Mounting Frame, 10x5 , 6" Ring Side
PGA10X6R	PGA Grille White w/Mounting Frame, 10x6
PGA10X6R-5B	PGA Grille White w/Mounting Frame, 10x6 , 5" Ring Back
PGA10X6R-6B	PGA Grille White w/Mounting Frame, 10x6 , 6" Ring Back
PGA10X6R-5S	PGA Grille White w/Mounting Frame, 10x6 , 5" Ring Side
PGA10X6R-6S	PGA Grille White w/Mounting Frame, 10x6 , 6" Ring Side
PGA10X8R	PGA Grille White w/Mounting Frame, 10x8
PGA10X8R-5B	PGA Grille White w/Mounting Frame, 10x8 , 5" Ring Back
PGA10X8R-6B	PGA Grille White w/Mounting Frame, 10x8 , 6" Ring Back
PGA10X8R-7B	PGA Grille White w/Mounting Frame, 10x8 , 7" Ring Back
PGA10X10R	PGA Grille White w/Mounting Frame, 10x10
PGA10X14R	PGA Grille White w/Mounting Frame, 10x14
PGA12X4R	PGA Grille White w/Mounting Frame, 12x4
PGA12X4R-4B	PGA Grille White w/Mounting Frame, 12x4 , 4" Ring Back
PGA12X4R-5B	PGA Grille White w/Mounting Frame, 12x4 , 5" Ring Back
PGA12X4R-4S	PGA Grille White w/Mounting Frame, 12x4 , 4" Ring Side
PGA12X4R-5S	PGA Grille White w/Mounting Frame, 12x4 , 5" Ring Side
PGA12X5R	PGA Grille White w/Mounting Frame, 12x5
PGA12X5R-4B	PGA Grille White w/Mounting Frame, 12x5 , 4" Ring Back
PGA12X5R-5B	PGA Grille White w/Mounting Frame, 12x5 , 5" Ring Back
PGA12X5R-6B	PGA Grille White w/Mounting Frame, 12x5 , 6" Ring Back
PGA12X5R-4S	PGA Grille White w/Mounting Frame, 12x5 , 4" Ring Side
PGA12X5R-5S	PGA Grille White w/Mounting Frame, 12x5 , 5" Ring Side
PGA12X5R-6S	PGA Grille White w/Mounting Frame, 12x5 , 6" Ring Side
PGA12X6R	PGA Grille White w/Mounting Frame, 12x6
PGA12X6R-4B	PGA Grille White w/Mounting Frame, 12x6 , 4" Ring Back
PGA12X6R-5B	PGA Grille White w/Mounting Frame, 12x6 , 5" Ring Back
PGA12X6R-6B	PGA Grille White w/Mounting Frame, 12x6 , 6" Ring Back
PGA12X6R-7B	PGA Grille White w/Mounting Frame, 12x6 , 7" Ring Back
PGA12X12R	PGA Grille White w/Mounting Frame, 12x12
PGA12X14R	PGA Grille White w/Mounting Frame, 12x14
PGA14X10R	PGA Grille White w/Mounting Frame, 14x10
PGA14X12R	PGA Grille White w/Mounting Frame, 14x12
PGA16X4R	PGA Grille White w/Mounting Frame, 16x4
PGA16X8R	PGA Grille White w/Mounting Frame, 16x8
PGA20X4R	PGA Grille White w/Mounting Frame, 20x4
PGA20X4R-4S	PGA Grille White w/Mounting Frame, 20x4 , 4" Ring Side
PGA20X4R-5S	PGA Grille White w/Mounting Frame, 20x4 , 5" Ring Side
PGA20X4R-6S	PGA Grille White w/Mounting Frame, 20x4 , 6" Ring Side

NEW

Model PGAMLR

Unit includes grille and mounting frame w/ ring

Application: Supply Air (Adjustable Blades w/ Damper)

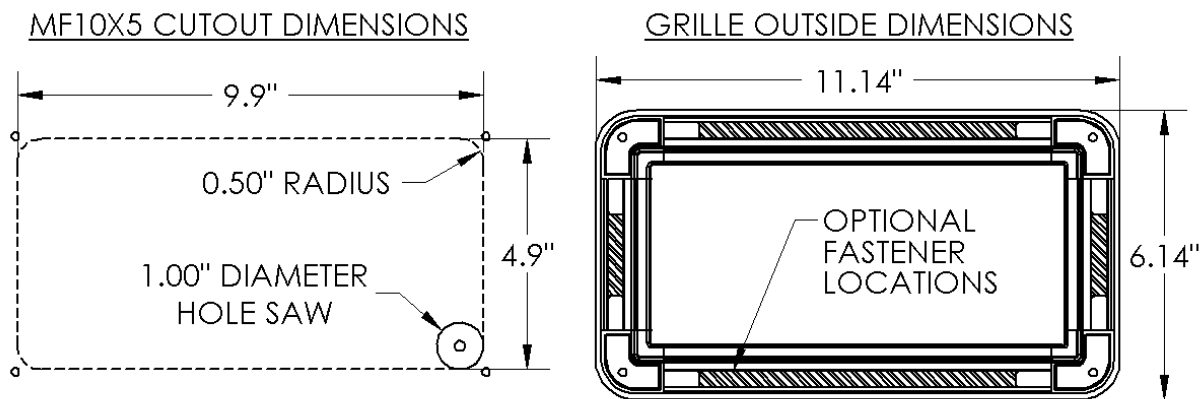


ITEM CODE	DESCRIPTION
PGAML5X5R-3B	PGAML Grille White w/Damper & Mounting Frame, 5x5, 3" Ring Back
PGAML6X6R-4B	PGAML Grille White w/Damper & Mounting Frame, 6x6, 4" Ring Back

Plastic-Framed Grilles - Hole Cutout Dimensions

There is a consistent formula to cut the holes for the plastic grille mounting frame. *The side dimension is the nominal size less (.100").* Therefore, the dimension for the MF10X5 shown below would be 9.9" x 4.9". For manual cutting we suggest using a 1" diameter hole saw to create the 1/2" radius corners. If you cut it square there will not be anyplace to fasten through the hole in the corners and you will need to use the optional side locations. Those companies using CNC equipment should be able to accurately cut this opening. Please have our product in hand before you cut or program holes for the first time.

The chart on the following page shows the MOUNTING FRAME CUTOUT DIMENSIONS and the PLASTIC GRILLE OUTSIDE DIMENSIONS for all of our plastic grilles.



PLASTIC GRILLE NOMINAL SIZE	MOUNTING FRAME CUTOUT DIMENSIONS	PLASTIC GRILLE OUTSIDE DIMENSIONS
4 x 4	3.9" x 3.9"	5.14" x 5.14"
4 x 6	3.9 x 5.9	5.14 x 7.14
4 x 8	3.9 x 7.9	5.14 x 9.14
4 x 10	3.9 x 9.9	5.14 x 11.14
4 x 12	3.9 x 11.9	5.14 x 13.14
4 x 16	3.9 x 15.9	5.14 x 17.14
4 x 20	3.9 x 19.9	5.14 x 21.14
5 x 5	4.9 x 4.9	6.14 x 6.14
5 x 10	4.9 x 9.9	6.14 x 11.14
5 x 12	4.9 x 11.9	6.14 x 13.14
6 x 4	5.9 x 3.9	7.14 x 5.14
6 x 6	5.9 x 5.9	7.14 x 7.14
6 x 10	5.9 x 9.9	7.14 x 11.14
6 x 12	5.9 x 11.9	7.14 x 13.14
8 x 4	7.9 x 3.9	9.14 x 5.14
8 x 8	7.9 x 7.9	9.14 x 9.14
8 x 10	7.9 x 9.9	9.14 x 11.14
8 x 16	7.9 x 15.9	9.14 x 17.14
10 x 4	9.9 x 3.9	11.14 x 5.14
10 x 5	9.9 x 4.9	11.14 x 6.14
10 x 6	9.9 x 5.9	11.14 x 7.14
10 x 8	9.9 x 7.9	11.14 x 9.14
10 x 10	9.9 x 9.9	11.14 x 11.14
10 x 14	9.9 x 13.9	11.14 x 15.14
12 x 4	11.9 x 3.9	13.14 x 5.14
12 x 5	11.9 x 4.9	13.14 x 6.14
12 x 6	11.9 x 5.9	13.14 x 7.14
12 x 12	11.9 x 11.9	13.14 x 13.14
12 x 14	11.9 x 13.9	13.14 x 15.14
14 x 10	13.9 x 9.9	15.14 x 11.14
14 x 12	13.9 x 11.9	15.14 x 13.14
16 x 4	15.9 x 3.9	17.14 x 5.14
16 x 8	15.9 x 7.9	17.14 x 9.14
20 x 4	19.9 x 3.9	21.14 x 5.14

Ducting Products

Whether you choose our wood-framed or plastic-framed grilles, you will need a way to duct conditioned air to them. We manufacture a complete line of plastic ducting products from the hose adapter on the air handler to the transitions behind our wood-framed grilles. On the next few pages you will find an assortment of duct rings, adapters, transitions, special transitions, plenum boxes and the widest range of AirDividers available anywhere. On page 32 you can find the insulated duct that we distribute along with some miscellaneous grilles and other products.

PLASTIC DUCTING PRODUCTS

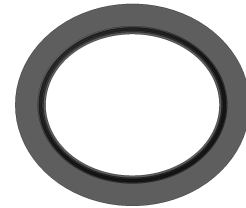
HOSE RINGS, ROUND (Effective Area E.A.)

ITEM CODE	DESCRIPTION	E.A.
HR2	Hose Ring, Round, 2"	2.2 in ²
HR3	Hose Ring, Round, 3"	5.6 in ²
HR4	Hose Ring, Round, 4"	10.5 in ²
HR5	Hose Ring, Round, 5"	16.8 in ²
HR6	Hose Ring, Round, 6"	24.3 in ²
HR7	Hose Ring, Round, 7"	34.3 in ²
HR8	Hose Ring, Round, 8"	45.8 in ²



HOSE RINGS, ELLIPTICAL (Effective Area E.A.)

ITEM CODE	DESCRIPTION	E.A.
HRE3	Hose Ring, Elliptical, 3"	5.3 in ²
HRE6	Hose Ring, Elliptical, 6"	23.8 in ²



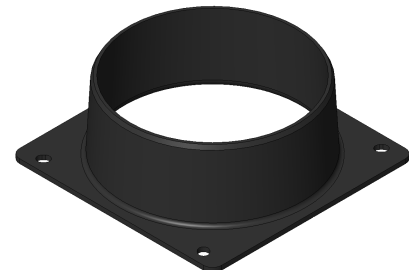
HOSE RINGS, FLAT OVAL (Effective Area E.A.)

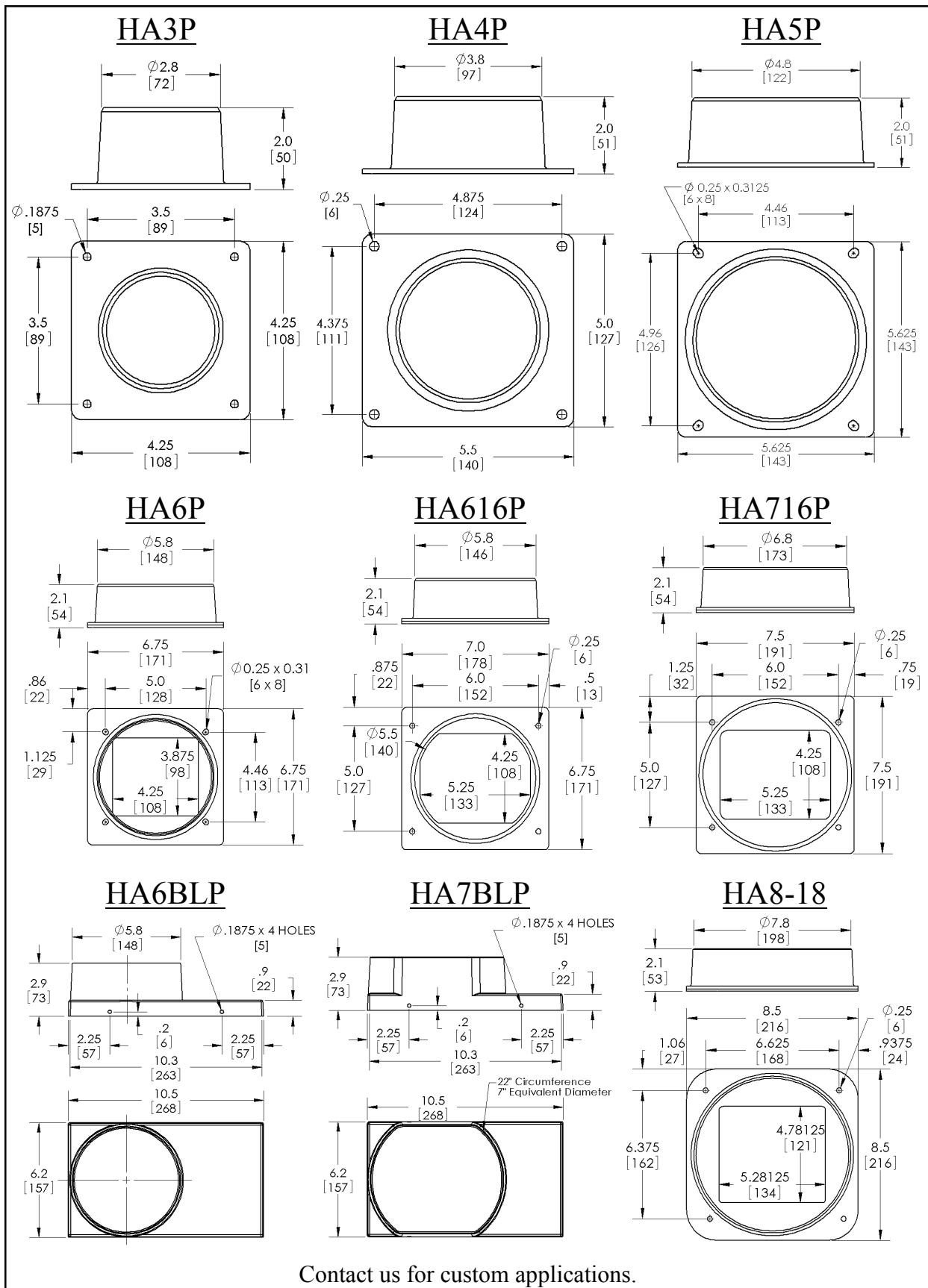
ITEM CODE	DESCRIPTION	E.A.
HRF4	Hose Ring, Flat Oval, 4"	8.6 in ²
HRF5	Hose Ring, Flat Oval, 5"	13.0 in ²
HRF6	Hose Ring, Flat Oval, 6"	18.0 in ²
HRF7	Hose Ring, Flat Oval, 7"	25.8 in ²
HRF8	Hose Ring, Flat Oval, 8"	33.8 in ²



BLOWER ADAPTERS (Dimensions on Following Page)

ITEM CODE	DESCRIPTION	E.A.
HA3P	Blower Adapter, 3" Duct	5.6 in ²
HA4P	Blower Adapter, 4" Duct	10.5 in ²
HA5P	Blower Adapter, 5" Duct	16.8 in ²
HA6P	Blower Adapter, 6" Duct	16.5 in ²
HA616P	Blower Adapter, 6" Duct	20.5 in ²
HA716P	Blower Adapter, 7" Duct	22.2 in ²
HA6BLP	Blower Adapter, 6" Duct	24.9 in ²
HA7BLP	Blower Adapter, 7" Duct	34 in ²
HA8-18	Blower Adapter, 8" Duct	25.2 in ²





Contact us for custom applications.

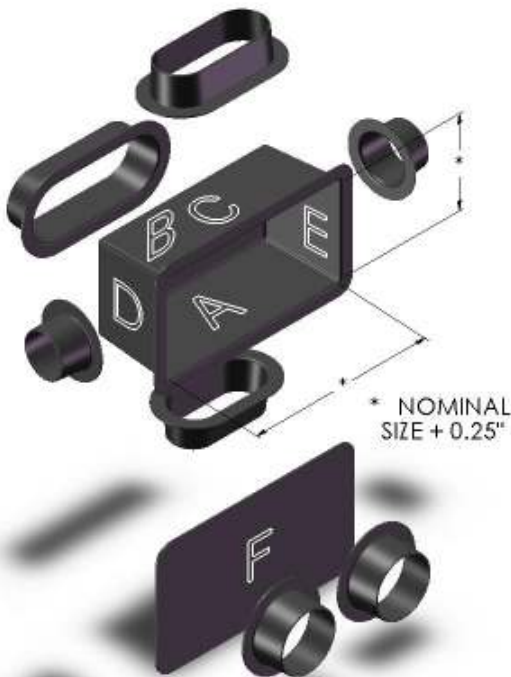
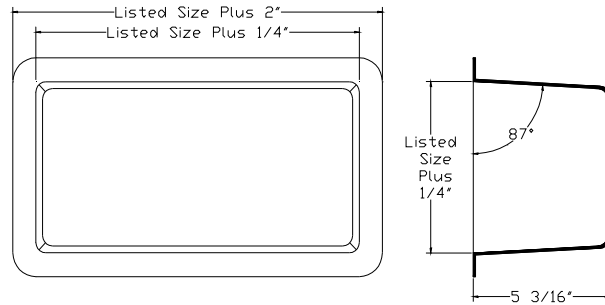
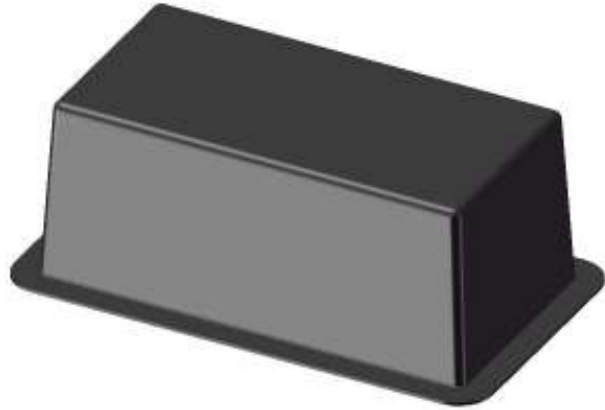
PLASTIC DUCTING PRODUCTS

TRANSITIONS, STANDARD (ORDER RINGS ON PREVIOUS PAGE)

ITEM CODE

DESCRIPTION

TB64	Transition Box, 6X4
TB84	Transition Box, 8x4
TB104	Transition Box, 10x4
TB124	Transition Box, 12x4
TB144	Transition Box, 14x4
TB164	Transition Box, 16x4
TB204	Transition Box, 20x4
TB85	Transition Box, 8x5
TB105	Transition Box, 10x5
TB125	Transition Box, 12x5
TB145	Transition Box, 14x5
TB205	Transition Box, 20x5
TB66	Transition Box, 6x6
TB86	Transition Box, 8x6
TB106	Transition Box, 10x6
TB126	Transition Box, 12x6
TB146	Transition Box, 14x6
TB166	Transition Box, 16x6
TB206	Transition Box, 20x6
TB77	Transition Box, 7x7
TB88	Transition Box, 8x8
TB108	Transition Box, 10x8
TB168	Transition Box, 16x8
TB1010	Transition Box, 10x10
TB1212	Transition Box, 12x12



Our standard transition boxes are constructed of black ABS with a haircel finish. They are all slightly more than 5" deep and at the opening they are 1/4" larger than the nominal size. The flange corners and all edges are rounded to avoid sharp points.

All of our standard transition boxes can be assembled at the factory with one or more rings attached and additionally openings can be closed to create a distribution plenum. Specify the side by letter followed by a ring size. We will use a round ring if possible. If not, we will use either an oblong ring or a flat oval. The opening can be closed off with a blank or with one or more rings. Please provide a drawing for complex configurations and any internal baffles.

PLASTIC DUCTING PRODUCTS

TRANSITIONS, RING BACK

ITEM CODE	DESCRIPTION
TB44-3B	Transition Box, 4x4, 3" Ring Back
TB44-4B	Transition Box, 4x4, 4" Ring Back
TB64-3B	Transition Box, 6x4, 3" Ring Back
TB64-4B	Transition Box, 6x4, 4" Ring Back
TB84-4B	Transition Box, 8x4, 4" Ring Back
TB84-5B	Transition Box, 8x4, 5" Ring Back
TB86-6B	Transition Box, 8x6, 6" Ring Back
TB104-5B	Transition Box, 10x4, 5" Ring Back
TB104-6B	Transition Box, 10x4, 6" Ring Back
TB105-5B	Transition Box, 10x5, 5" Ring Back
TB106-5B	Transition Box, 10x6, 5" Ring Back
TB106-6B	Transition Box, 10x6, 6" Ring Back
TB145-7B	Transition Box, 14x5, 7" Ring Back



TRANSITIONS, RING SIDE

ITEM CODE	DESCRIPTION
TB84-4S	Transition Box, 8x4, 4" Ring Side
TB84-5S	Transition Box, 8x4, 5" Ring Side
TB84-6S	Transition Box, 8x4, 6" Ring Side
TB104-4S	Transition Box, 10x4, 4" Ring Side
TB104-5S	Transition Box, 10x4, 5" Ring Side
TB104-6S	Transition Box, 10x4, 6" Ring Side
TB124-5S	Transition Box, 12x4, 5" Ring Side
TB124-6S	Transition Box, 12x4, 6" Ring Side



TRANSITIONS, RING END (also transition hose ring adapters to fit standard transitions)

ITEM CODE	DESCRIPTION
TR3-4E	Transition Hose Ring, 3"
TR4-4E	Transition Hose Ring, 4"
TB44-3E	Transition Box, 4x4, 3" Ring End
TB44-4E	Transition Box, 4x4, 4" Ring End
TB64-3E	Transition Box, 6x4, 3" Ring End
TB64-4E	Transition Box, 6x4, 4" Ring End
TB84-4E	Transition Box, 8x4, 4" Ring End
TB104-4E	Transition Box, 10x4, 4" Ring End
TB105-5E	Transition Box, 10x5, 5" Ring End
TB124-4E	Transition Box, 12x4, 4" Ring End



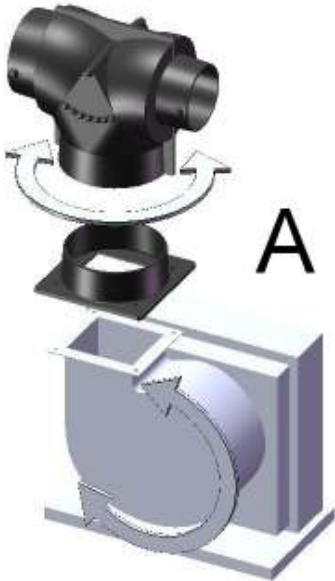
PLENUM BOXES (Optional Factory or Field Installed Rings, Baffles, Adapter Covers)

PL5	Plenum Box, Blank Sides & Cover (Fits 5" Ring)
PL6	Plenum Box, Blank Sides & Cover (Fits 6" Ring)
PL7	Plenum Box, 7"x7"x7", Blank Sides & Cover

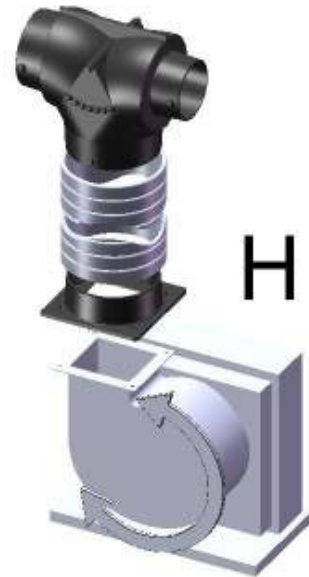
AirDivider

Designed and manufactured by Marine Systems, Inc.

2 Inlet Supply Types (A or H)

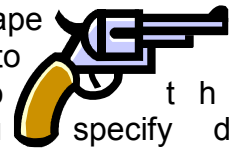


Configure our AirDividers by first choosing one of two inlet supply types (Adapter on left or Hose on right). Both begin with a blower adapter secured to your unit. If you want to mount our AirDivider directly onto the blower specify "A". The draft angle on our blower adapters is a perfect fit for our A-style AirDividers. Rotate the AirDivider as necessary and secure. If you will be connecting to the blower with hose duct specify "H" and secure duct on all fittings.



3 Basic Shapes (T, Y, P)

There are three basic AirDivider shapes "T", "Y" and our new "P" and they are available in all sizes. The "T" and "Y" shape are self-explanatory. The "P" shape is derived from "pistol" where the inlet is the pistol grip, the outlet to the right at 90 degrees is the barrel and the outlet at 30 degrees to the left is the hammer. It will be important to use this pistol image if you specify different outlet sizes in this "P" model. See more explanations later in this section.



At this point you have six possible designations to include AT, AY, AP, HT, HY and HP.

Inlet Fittings

We have five basic AirDivider bodies (4"-8"). We have seven adapter inlet fittings (3"-9") and seven hose inlet fittings (3"-9"). We are currently putting the 3" on the 4" body and the 9" on the 8" body. As you will see below we have 42 possible models even before we add the outlet fittings.

4"-Body AT3, AT4, AY3, AY4, AP3, AP4, HT3, HT4, HY3, HY4, HP3, HP4

5"-Body AT5, AY5, AP5, HT5, HY5, HP5

6"-Body AT6, AY6, AP6, HT6, HY6, HP6

7"-Body AT7, AY7, AP7, HT7, HY7, HP7

8"-Body AT8, AT9, AY8, AY9, AP8, AP9, HT8, HT9, HY8, HY9, HP8, HP9

Outlet Fittings

It is now time to add the two outlet sizes to our AirDividers. We have seven possible outlet sizes from 2" - 8". The maximum outlet size is controlled by the body size which is controlled by the inlet size. Available outlet sizes per body are:

4"-Body 2", 3", 4"

5"-Body 2", 3", 4", 5"

6"-Body 2", 3", 4", 5", 6"

7"-Body 2", 3", 4", 5", 6", 7"

8"-Body 2", 3", 4", 5", 6", 7", 8"

Instructions for P Model

Please pay attention to these instructions for specifying our P model. *If you specify equal sized outlet sizes you can skip these instructions.* The order of numbering is inlet size (pistol grip) followed by the left side (hammer) and then ending with the right side (barrel). Let's say that you have decided on a AP4 model which will fit on our HA4 blower adapter. You want a 4" hose to go out the barrel but you want a 3" at the trigger. The part number would be AP434.



Hidden inside of all of our AirDividers is our exclusive air diverter. Cut on our CNC router, this simple piece of plastic is very effective in controlling the amount of air force at the two outlets.

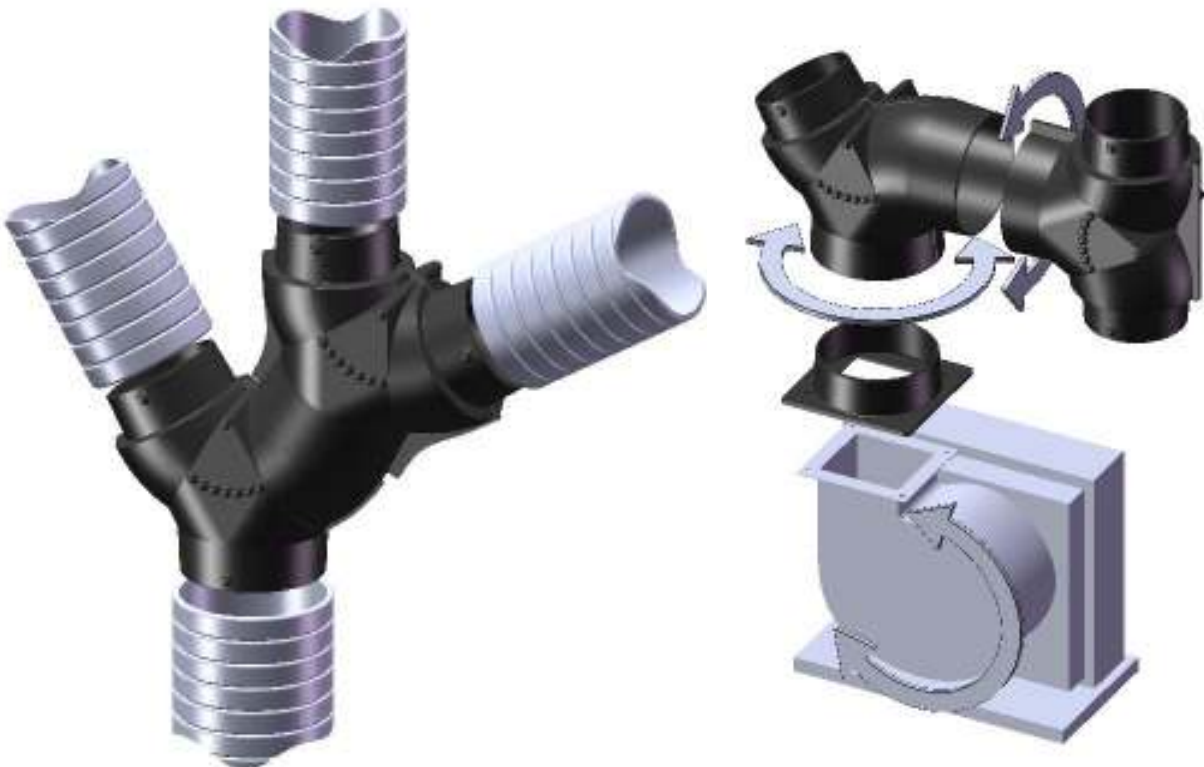
With the new models we also started adding simple bumps to the outlets to assist in securing hose duct. Although our inventive AirDividers have been copied in concept and name we feel that no one has equaled the MSI AirDivider.



Our Most Common Models

HY544	HY654	HT443	HT755
HT444	HY663	AT654	HY533
HY433	AY653	HT644	AT653
HY554	HT554	HY655	HT664
HY553	AT544	HY764	AT644
HT544	AT764	AY644	AT755
AT655	HY755	HT553	AY544
HY664	HT655	AT663	HT775
HY644	HY543	HT755	AY664
HY444	HY653	HY533	AT664
AT553	HY443	AT663	AY654

Custom AirDividers Available

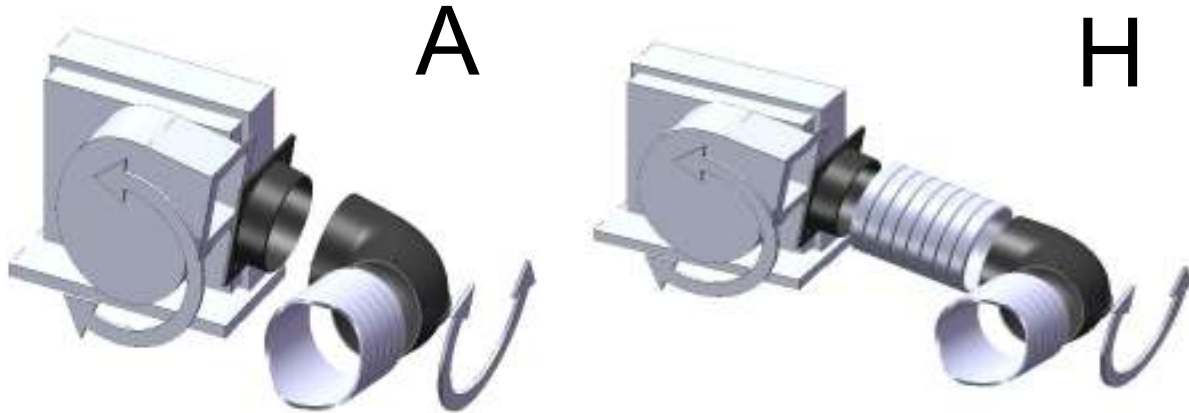


90° Adapter/Hose Elbows

Use our elbows in areas where hose duct crushing can occur and compromise airflow. Our adapter style will fit on our equivalent sized hose adapters. Rotate to the desired angle and secure. Our hose style can be used anywhere along the air supply route. Outlet side includes our simple bumps to assist in securing hose duct. Current sizes available includes 4", 5", 6", 7" and 8".

Contact us for custom applications.

2 Inlet Supply Types (A or H)



ITEM CODE

DESCRIPTION

A4-90	4" Adapter Elbow, 90°
A5-90	5" Adapter Elbow, 90°
A6-90	6" Adapter Elbow, 90°
A7-90	7" Adapter Elbow, 90°
A8-90	8" Adapter Elbow, 90°

H4-90	4" Hose Elbow, 90°
H5-90	5" Hose Elbow, 90°
H6-90	6" Hose Elbow, 90°
H7-90	7" Hose Elbow, 90°
H8-90	8" Hose Elbow, 90°



MISCELLANEOUS PARTS

Round Plastic Grilles (Global Style)

ITEM CODE	DESCRIPTION
3GL-BK	3" Round Global Style, Black
3GL-BK3	3" Round Global Style, Black, With 3" Hose Adapter
3GL-W	3" Round Global Style, White
3GL-W3	3" Round Global Style, White, With 3" Hose Adapter
3GL-OW	3" Round Global Style, Off-White
3GL-OW3	3" Round Global Style, Off-White, With 3" Hose Adapter



3GL-BK



3GL-W



3GL-OW3

Round Plastic Grilles (Traditional Style)

ITEM CODE	DESCRIPTION
R4ABK	4" Round Damper Vent, Black
R4ABN	4" Round Damper Vent, Brown
R4AW	4" Round Damper Vent, White
R4AOW	4" Round Damper Vent, Off-White



R4ABK



R4ABN



R4AW



R4AOW

Round Plastic Grille Adapter

ITEM CODE	DESCRIPTION
RR3-4R	3" Hose Adapter to 4" Round Vent



RR3-4R



R4AW WITH RR3-4R

****Product colors shown are approximate****

Insulated Flexible Hose Duct

ITEM CODE

DESCRIPTION

HCID-3	Hart-Cooley 3" x 25', R 4.2 Insulated Hose
HCID-4	Hart-Cooley 4" x 25', R 4.2 Insulated Hose
HCID-5	Hart-Cooley 5" x 25', R 4.2 Insulated Hose
HCID-6	Hart-Cooley 6" x 25', R 4.2 Insulated Hose
HCID-7	Hart-Cooley 7" x 25', R 4.2 Insulated Hose
HCID-8	Hart-Cooley 8" x 25', R 4.2 Insulated Hose



Duct Couplings

ITEM CODE

DESCRIPTION

DC4	Duct Coupling, 4"
DC5	Duct Coupling, 5"
DC5-4	Duct Coupling, Reducing, 5" to 4"



DC4



DC5



DC5-4

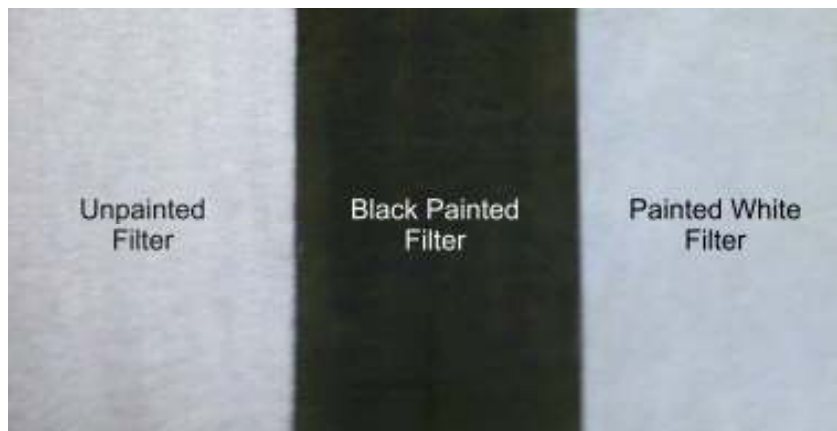


Replacement Filter Material

ITEM CODE

DESCRIPTION

FM2032	Aluminum Filter Material, 20"x32", Unpainted
FM2032B	Aluminum Filter Material, 20"x32", Black
FM2032W	Aluminum Filter Material, 20"x32", White



QuietVent Fans

In 2001 we were approached by a yacht builder to design a quiet fan to duct stale air from their heads (bathroom). We found an excellent source of DC brushless axial cooling fans and mated it to a special PG mounting receiver. As in all of our PG receivers it mounts on the finished side of the wall and our plastic framed grille is "snapped" into the receiver and held with stainless steel spring catches. The standard receiver (shown at right) also includes a 4" hose ring for routing the stale air outside. From that first 12 VDC version we have added 24 VDC, 115 VAC and 230 VAC models. Other versions are being used to ventilate electronics cabinets, generators, and to move conditioned air. As with all of our products we can customize this product to your needs.

12 & 24 VDC *fan motors* rated at 45 dBA and 140CFM.
 115 & 230 VAC 60 Hz *fan motors* rated at 38 dBA and 81 CFM.



VF66-12V



VF66-115VR

ITEM CODE	DESCRIPTION
VF66-12V	Vent Fan, PG66, White, 12 VDC
VF66-24V	Vent Fan, PG66, White, 24 VDC
VF66BK-12V	Vent Fan, PG66, Black, 12 VDC
VF66BK-24V	Vent Fan, PG66, Black, 24 VDC
VF66-115VR	Vent Fan, PG66, White, 115 VAC, Reverse Direction
VFI44-12V	Vent Fan, In-Line, 4" In, 4" Out 12 VDC



VFI44-12V

QuietScent Air Freshener

In January 2009 we completed a fan project for another yacht builder. A long time user of Broan's 115 VAC air fresheners, they quickly needed a replacement for the discontinued product. Like the Broan product our QuietScent blows air across products like Air Wick's® stickups®. The Broan product was never intended for the high seas and shifting stickups® could and did break the fan blades in the Broan unit. We designed our product for motion. Although priced higher than common plug-in type air fresheners, our quality QuietScent Air Fresheners may be worth considering.



ITEM CODE

DESCRIPTION

AFW120

Air Freshener, White Grille, 120 VAC

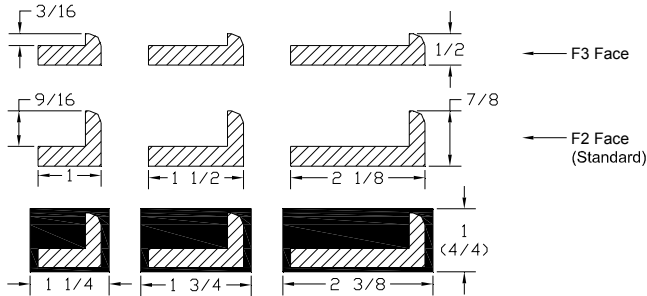


Standard and Optional Wood Calculator

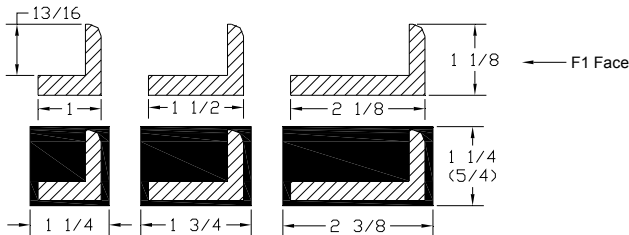
It will sometimes be necessary or desirable for you to supply the raw lumber for your wood framed grilles. Please review the drawings below to help you calculate the raw wood dimensions. The length of the strips are calculated by adding the four nominal sides of the desired grille plus 12". An 8x4 grille would total $8+4+8+4+12$ for 36 inches. We sequence cut our moldings so you should always try to supply strips long enough to complete the full perimeter length of each grille. You can also supply the equivalent strips in boards and we will cut into strips.

Dimensions

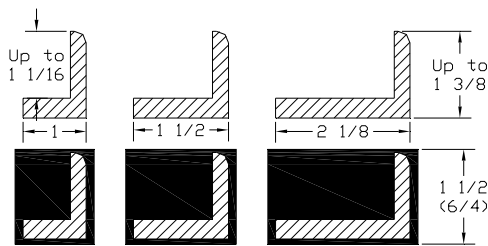
Dimensions



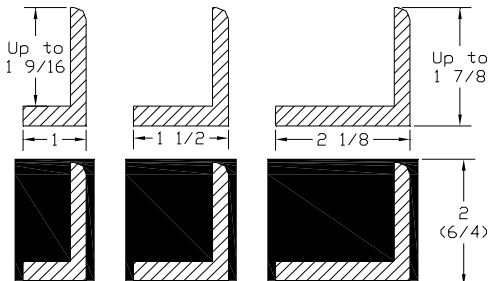
Our standard F2 face and F3 reduced face are both made from 4/4 (1") wood. Machining is the same for both. Price differentials by species apply.



Our F1 classic face is made from 5/4 (1-1/4") wood. Machining is the same as standard face. Price differential for volume and species will apply.



Any face style wider than our F1 face will have some hand machining prices as well as volume and species differentials.



MSI CUSTOMER ORDERING INFORMATION

Order Desk Hours: 8:00 AM - 4:30 PM, Monday - Friday (USA Eastern Time Zone)

Order Phone: (001) 828 254-5354 (*We Require a Written Confirming Purchase Order and We Will Provide you with a Written Confirmation by fax, email or mail*)

Order Fax: (001) 828 254-5364

Email: sales@airmsi.com

Mail: Marine Systems, Inc. · 7 Westside Drive · Asheville, NC 28806-2846 · USA

Minimum Order: We have no minimum order (See Shipping/Handling)

New Wholesale Dealers: Our products are sold only through authorized distributors, dealers and OEM's. New U.S. accounts must submit a state exempt certificate from their state of purchase. Additional identification may be required.

Prices: Price lists are provided to current and prospective customers of MSI. Please contact us for price list and trade discount if you are interested in becoming a dealer. All prices are suggested list price in U.S. Dollars, FOB factory and do not include any shipping/handling or governmental fees and taxes. Prices are subject to change without notice. *Any price list provided by one of our dealers is subject to the terms of that dealer.*

Quotations: Custom quotations are valid for 30 days.

Payment Policy: All orders are shipped COD unless credit has been approved. A credit application must be submitted with an officer or owner signature.

Shipping/Handling: Shipping charges are billed at cost with a handling charge for small orders and excessively large or difficult packaging. Multiple small orders will be grouped together to avoid handling charges when possible and permitted.

Product Availability: Availability of our products is subject to change without notice. Our product lines are predominately customized and lead times vary with the season. Please place your orders early for timely delivery.

Returns: Most of our products are custom-made and are not returnable. No returns will be accepted without an authorized RMA number clearly marked on the return packaging. Any approved returns are subject to a 20% restocking charge.

We want your order to be correct so please do not hesitate to consult with us.

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